DOCUMENT RESUME

ED 198 110	SP 017 414
TITLE	In-Service Teacher Education: Developing Innovatory Strategies and Instructional Materials. Report of a Study Group (Bangkok, Thailand, September 20-29, 1979).
INSTITUTION	United Nations Educational, Scientific, and Cultural Organization, Bangkok (Thailand). Regional Office for Education in Asia and Oceania.
PUB DATE	80
NOTE	105p.
AVAILABLE FROM	UNIPUB, Box 433, Murray Hill Station, New York, NY 10016 (Price to be checked with UNIPUB).
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	*Curriculum Development: *Developing Nations: Faculty Development: Global Approach: *Inservice Teacher Education: *Instructional Materials: International Educational Exchange: *Material Development
IDENTIFIERS	*Asian Programme of Educ Innovation for Development

ABSTRACT

A study group of representatives from eight Asian nations met under the auspices of the Asian Programme of Educational Innovation for Development to share experiences related to inservice education and the development of materials used in inservice training. The participants were specialists in different disciplines, teacher educators, curriculum developers, and personnel connected with instructional design and materials development and evaluation. The aims of the meeting were: (1) to analyze strategies for inservice training of teachers and other education personnel; (2) to review and analyze the exemplary materials developed in the countries for inservice training; and (3) to develop guidelines for preparation of exemplary materials for inservice training. The first chapter highlights the status of inservice education programs and alternative approaches currently undertaken in each of the participating countries: Bangladesh, India, Indonesia, Malaysia, Nepal, the Phillipines, Sri Lanka, and Thailand. Chapters contain discussions on developing strategies, materials, guidelines, and the follow-up actions postulated by each country at the end of the meeting. Appendices include an agenda of the meeting, a list of the participants, and a list of the working documents. (FG)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ASIAN PROGRAMME OF EDUCATIONAL INNOVATION FOR DEVELOPMENT **APEID**

ED198110

IN-SERVICE TEACHER EDUCATION:
developing innovatory strategies and instructional materials

Report of a Study Group

U.S. DEPARTMENT OF EDUCATION
[illegible]

PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

SP 017 449

UNESCO REGIONAL OFFICE FOR EDUCATION IN ASIA AND OCEANIA
Bangkok, 1980

APEID Study Group on In-Service Teacher Education,
Bangkok, 20-29 September 1979.
In-service teacher education: developing innovatory strategies and instructional materials; report. Bangkok, Unesco, 1980.
96 p. (Asian Programme of Educational Innovation for Development)

1. IN-SERVICE TEACHER EDUCATION - ASIA. 2. INSTRUCTIONAL MATERIALS - ASIA. I. Unesco. Regional Office for Education in Asia and Oceania, Bangkok. II. Title. III. Series

370.71
371.146 ○

ASIAN PROGRAMME OF EDUCATIONAL INNOVATION FOR DEVELOPMENT **APEID**

IN-SERVICE TEACHER EDUCATION:
developing innovatory strategies and instructional materials

Report of a Study Group
Bangkok, 20-29 September 1979

UNESCO REGIONAL OFFICE FOR EDUCATION IN ASIA AND OCEANIA
Bangkok, 1980

FEB 2 1981
4

© Unesco 1980

Published by the
Unesco Regional Office for Education in Asia and Oceania
P.O. Box1425, Bangkok G.P.O.
Bangkok, Thailand

Printed in Thailand

Opinions expressed in this publication are those of the Study Group and do not necessarily coincide with official views of Unesco. The designations employed and the presentation of the material herein do not imply the expression of any opinion whatsoever on the part of Unesco concerning the legal status of any country, or of its authorities, or concerning the delimitations of the frontiers of any country or territory.

BKA/80/OP/334-1200

CONTENTS

Page

Preface

Chapter I: Experiences of in-service education in the countries 1

Chapter II: Selected strategies of in-service education 32

Chapter III: Exemplar materials used or developed for in-service training of teachers and other educational personnel 58

Chapter IV: Overview and synthesis of exemplar materials used or developed 64

Chapter V: Guidelines for the preparation of exemplar materials for in-service training of teachers and other educational personnel 70

Chapter VI: Follow-up activities by the countries 87

Annexes

Annex I: Agenda of the Study Group 93

Annex II: List of participants 94

Annex III: List of documents 97

PREFACE

The need to evaluate strategies for in-service training of teachers and other educational personnel and to review materials used for in-service training, with a view to sharing experiences and updating knowledge and skills in this area, is well recognized. Because programmes of in-service training for teachers have been running for many years in the member countries, it was deemed necessary to review and examine experiences on strategies for in-service education.

In this connection, the Study Group Meeting on Development of Exemplar Materials for In-service Training of Teachers was organized by the Unesco Regional Office for Education in Asia and Oceania under APEID from 20 to 29 September 1979 in Bangkok. The aims of the Study Group Meeting were:

1. to analyse the strategies for in-service training of teachers and other educational personnel;
2. to review and analyse the exemplar materials developed in the countries for in-service training of teachers and other educational personnel; and
3. to develop guidelines for preparation of exemplar materials for in-service training.

The Study Group Meeting was designed to facilitate a sharing of experiences related to in-service education and the development of exemplar materials indigenous to the needs of member countries. The Study Group consisted of specialists in different disciplines, curriculum developers, teacher educators, specialists in instructional design, and other personnel connected with materials development and evaluation.

Grateful acknowledgement is made to the members of the Study Group for their contribution to the preparation of this report. It is published in the hope that it will be of help to teachers and other educational personnel in their efforts to design and implement viable in-service education programmes.

Chapter One

EXPERIENCES OF IN-SERVICE EDUCATION IN THE COUNTRIES

The need for a continuing programme of in-service training to raise the qualification of teachers and to update their knowledge and skills cannot be overemphasized. Education connotes continuous growth, particularly so for teachers and other educational personnel.

This chapter highlights in-service education programmes and alternative approaches currently undertaken in the eight participating countries to meet the need for more and better trained teachers in the face of national development needs and priorities.

Bangladesh

Introduction

When Bangladesh was formed, almost all teachers in the schools were untrained and unqualified. There was only one Teacher Training College (TTC) for secondary school teachers and one for primary school teachers. Presently, there are 47 Primary Training Institutes (PTI) for primary school teachers, but selection of applicants is a problem. Eighty per cent of the students selected are already teaching in primary schools; the remaining 20 per cent are for students intending to go to teaching. Because of very limited facilities for study and accommodation, the PTI can take only 100 students at a time; the TTC, only 150 to 250.

In Bangladesh almost all institutions conducting pre-service and in-service training programmes are under the Directorate of Education. The only exception is the Institute of Education and Research at Dacca University which is managed and administered by the University authorities.

The Teacher Training Colleges (TTCs) and the Institute of Education and Research at Dacca University are in charge of pre-service education and teacher certification only. It is the Education Extension and Research Institute, established in 1959, which takes care of the in-service training of teachers trained long ago or those being trained for new needs.

The Bangladesh Education Extension and Research Institute is concerned only with in-service education. It gives training to all types of educational personnel—inspectors, subject teachers for primary and secondary schools, college professors and headmasters.

The Institute has the following functions:

1. To help secondary school teachers acquire up-to-date knowledge of teaching methods and increase their efficiency in teaching their respective subjects.
2. To help headmasters and headmistresses, as far as practicable, to deal with problems arising out of introduction of diversified courses—like advanced science, commerce, agriculture, home economics and industrial arts.
3. To assist in the general improvement of the curricular programme of the pilot secondary schools.
4. To arrange seminars and conferences for inspectors, education officers and other top ranking officials of the Education Department.
5. To disseminate knowledge about different aspects of education through the publication of journals, booklets, and the like.

Strategies for in-service education

In-service training programmes initiated by the Institute are of three types: (A) short courses ranging from one week to ten weeks; (B) one-year courses in the vocational subject areas; and (C) seminars and conferences for the heads of educational institutions and other educational officers.

A. The short courses are:

1. Study Conference of high school heads
2. Teaching English
3. Teaching Science (Secondary and Higher Secondary)
4. Teaching Arts and Crafts
5. Teaching Agriculture
6. Teaching Bengali
7. Teaching Social Studies (including Geography)
8. Study Conference of Education Officers
9. Teaching Mathematics (Secondary and Higher Secondary)
10. Testing and Evaluation
11. Teaching Home Economics
12. Civil Defence
13. Religious Education
14. Library Science
15. Teaching Industrial Arts
16. Physical Education
17. Study Conference of P.T.I. Superintendents
18. Health Education

19. Teaching Music
20. Study Conference of the Principals of Degree Colleges
21. Short workshops: (a) Audio-Visual Education
    (b) Science

B. The long courses, which involve one academic year are:

1. Agriculture 2. Commerce 3. Industrial Arts

The objective of the courses is to prepare teachers and administrators to assume key roles and greater responsibility in the improvement of secondary schools. The topics usually taken up concern instructional processes, techniques of effective teaching in particular subjects, developments in education and techniques of evaluation and administration. In all these courses, arrangements are made for field trips to various organizations related to the specific group of participants.

Provision for evaluation and follow-up

Assessments are made before, during and after each course through questionnaires and interviews. Evaluations already done show that the participants benefit from the courses; as teachers they feel much more confident than before in dealing with students and with referent curricular subjects.

As regards follow-up, specialists visit schools at the end of the financial year when funds for training do not permit the holding of courses. Instructors are happy to visit classes but it has been noted that the trainees fall back to their old ways when the instructors or evaluators are not around. The trainees also complain to the instructors about their time-table, the lack of sympathy from authorities and shortage or non-availability of teaching aids in schools.

It has been suggested that schools be provided with more teaching aids for proper and efficient teaching. Secondly, there should be frequent (and unannounced) visits by inspectors and specialists. Both these suggestions call for more funds. Thirdly, the instructors should try to change the attitude of teachers towards the profession. Attitudes are most important. Certificates, promotions and money should not be the only basis of motivation. Love of teaching, of creative work and of working with students should also be motivating factors.

India

Introduction

The in-service teacher education programmes of the National Council of Educational Research and Training (NCERT) are organized in response to the felt needs in the field of education, or to make possible the successful implementation of innovations. The constituent units of NCERT are the National Institute of Education (NIE), the Centre for Educational Technology (CET), the four Regional Colleges of Education (RCES) and 17 offices of the Field Advisers.

With the introduction in the country of a new pattern of education (commonly known as the 10 + 2 pattern), the need for orienting teachers became imperative. The new pattern envisaged a common ten year school for all, followed by two years of school in which the curriculum was diversified into various academic and vocational courses. More important than the structure was the concern with revitalizing education by revising and upgrading the curriculum, and bringing about reform in the methods of teaching. This aim could only be achieved if the teachers were competent and willing to make the changes. Therefore, programmes for in-service training of teachers became an urgent task of NCERT.

Long-term courses

Correspondence-cum-contact courses for secondary teachers. In Juanary 1977, correspondence-cum-contact courses were introduced for the orientation of trained teachers teaching classes IX and X. The courses were conducted by the four regional colleges of education. The objectives of the courses are to help teachers to understand the new curriculum, to update their knowledge of their subject, and to acquaint them with new methods of teaching and of continuous evaluation of the performance and achievement of children. Material was prepared for eight school subjects, out of which each teacher selects the two subjects he or she is teaching in classes IX and X.

The courses include six months of instruction through correspondence. On successful completion of the correspondence programme, the candidates are called in groups for a two-week contact programme, which is extended to another two weeks for those interested in taking training in work experience.

Correspondence-cum-contact course for primary teacher educators. In most cases, the staff of primary teacher training institutions do not have any special preparation in primary education. Usually, those possessing a B. Ed. degree (which is meant for teaching in secondary schools) are appointed to these institutions. Therefore, a special course in primary education and teacher education was designed for them.

The course is run as a correspondence course of six months, followed by a contact programme of two weeks. The course content is based on the present primary teacher education programme. As it is proposed to bring about considerable change in primary teacher education, this course will also have to be revised.

Correspondence-cum-contact B. Ed. Course. This is a substitute for the pre-service programmes and is intended to clear the backlog of untrained teachers. It follows the curriculum of the pre-service training of teachers. Instruction is carried out in regular classes during two summer vacations, and through correspondence in the intervening nine months.

Short-duration programmes

NCERT organizes a number of programmes of short duration. Only those that are of special interest, either because of the content or the procedure, are described here:

A. In-service training of primary school teachers in science using multi-media package

NCERT has for some years been trying to improve the teaching of science in schools. The Department of Science Education prepared new textbooks and teachers' guides as well as economical teaching kits. Teachers, particularly primary school teachers, were not ready to benefit from these. Therefore, training programmes were conducted with the help of state agencies. However, not all states were equally enthusiastic. In spite of these efforts, in the majority of elementary schools, teaching of science continued to be a major weakness.

In 1975-1976, the use of television became possible by the loan of a satellite by the United States of America. The Centre for Educational Technology decided to use this facility to train a large number of teachers in the teaching of science.

The training programme had to be completed during a vacation period of 12 days, during which time the school television programmes were suspended.

A multi-media programme was developed. Its objectives were as follows:

1. To familiarize the teachers with the pedagogy associated with the science education programme;
2. To upgrade the teachers' knowledge and understanding of the content of the primary school science syllabus;
3. To familiarize the teachers with the textbooks and teachers' guides prepared by the NCERT for grades 3 to 5 and adopted or adapted by the states;
4. To familiarize the teachers with the primary science kit prepared by the NCERT; and
5. To show how things could be improvised even when a full kit is not available.

The following aspects were covered in the programme: (a) pedagogic, (b) motivational, and (c) enrichment. The components of the multi-media package were as follows:

B. Television and radio programme in support of in-service training

1. **Television programme**: This was a 22 and a half minute-programme mainly to illustrate pedagogy. But the lesson was based on specific content; therefore, could also serve the purpose of upgrading the teachers' knowledge of the subject matter. The telecast was preceded by an introductory talk by the teacher monitor, and followed by general discussion on the programme.
2. **Radio programme**: The radio programmes were of two types: (i) six were enrichment programmes which were based either on a topic from the telecast or on the day's activities, and attempted to relate the topic to everyday life; (ii) six were motivational programmes, consisting of prerecorded discussions on the day's work, or of interviews with teachers who

had successfully tried innovations.

C. Activities and methods in support of in-service training

1. **Activities:** These had the dual purpose of improving the teachers' knowledge of content, and of providing examples of simple experiments that could be carried out in schools. The activities were included in the activity guide. Participant-teachers were expected to carry out six activities each day. It was hoped that the teachers would continue to carry out activities detailed in the guidebook, even after the course was over.
2. **Enrichment material:** In addition to the enrichment of content provided by radio broadcasts, additional reading material was made available.
3. **Teacher monitor-tutorials:** The teacher monitors were science teachers from high/higher secondary schools or science teachers in elementary teacher training institutions. Their role was to answer questions arising out of the other means of communication, lead discussions, conduct tutorials, distribute materials and set up or supervise activities.

D. Special training needs for teacher educators

The staff of the Centre for Educational Technology conducted four-day courses for ten resource persons from each state. Forty teacher monitors from the state also participated in these courses. In each state, these ten resource persons, working in terms of four, conducting nine training programmes, each for 40 teacher monitors. A staff member from CET was also present at the programme.

Thus, 400 teacher monitors were trained in each of the six states covered in the programme. These 2,400 teacher monitors conducted the 12-day courses for teachers, each working with a group of ten teachers.

Pre- and post-tests revealed that the teachers had gained in their knowledge and understanding of the content covered. Responses to statements indicating attitude towards experimentation showed a change in the positive direction, although on some statements the gain was small. Observation of some classes showed that the teachers were making greater use of experimentation and questionning.

Some of the problems faced were that printed material did not reach some schools in time. The teacher monitors were not adequately prepared for their difficult role, and they found the programme too strenuous.

E. Nutrition/health education and environmental sanitation in primary schools

With the assistance of UNICEF, a pilot scheme on nutrition/health education and environmental sanitation was introduced in selected primary schools of five States. In each State, a regional centre was set up in a college of home sciences. Each centre developed instructional material in its regional language. In collaboration with the State Institute of Science Education, each centre arranged training courses for the participating schools.

It is proposed to extend the scheme to other centres; therefore, training of key persons in the States that is, the staff of the State Institute of Education (SIE): This is in progress and is expected to be completed by December 1979.

F. National integration

The nature and extent of the problem of national integration is probably unique to India where state and language groups, religious communities and castes still tend to exist. Some groups have no contact with some others. Groups also have prejudices, which fact is a challenge for education.

At the primary level, national integration camps are organized for teachers from all over India. The teachers live and work together and learn about each other's way of life and traditions. The camps are also used to introduce teachers to new trends in primary education such as non-formal education, involvement of community, social service, socially useful productive work. At the secondary level, there are combined camps for students and teachers. Five states participate in each camp.

G. In-service education in measurement and evaluation

Every summer, NCERT conducts a one-month programme in measurement and evaluation. Participants are deputed by the States. They include those concerned with public examinations and evaluation policies, and teacher educators. All aspects of measurement and evaluation are discussed at these seminars. In addition, a number of 15-day workshops have been held on item-writing. Paper setters, including secondary school teachers, have participated in these workshops. Resource persons have also been trained to conduct programmes in the states.

H. In-service education in microteaching

NCERT organized workshops in microteaching for secondary teacher educators. A course has also been organized for staff members of STEs/SCERTs. Two from each State have been trained. It is hoped that in turn, they will train primary teacher educators.

I. In-service education in UNICEF projects on curriculum renewal and on community development

UNICEF projects on curriculum renewal and on community development have been introduced in selected schools in five States. The teachers have been involved at each stage of the project, which has served the purpose of meaningful in-service education for them.

J. In-service education in other professional Courses

Various other courses have been organized for teacher educators and other categories of educational personnel. These include courses in student teaching and evaluation, teacher behaviour, programme learning and teaching aids etc.

Indirect in-service education

NCERT has two programmes which are not organized as conventional training programmes, but are designed to promote the professional growth of teachers. These are Experimental Projects and Seminar Readings.

A. Experimental projects

Under the scheme of Experimental Projects, ideas for research and experimentation are invited from teachers. Grants are given to schools to carry out worthwhile projects. Most of the projects are in the nature of action research. NCERT has conducted some programmes to provide guidance to teachers in designing experimental projects. Training has also been provided to resource persons in the states to enable them to guide and supervise the projects.

B. Seminar readings

Teachers and teacher educators are invited to write papers based on their creative thinking, experimentation and the innovations they may have introduced. The papers are submitted to the respective State Institutes of Education. The SIEs scrutinize the papers and forward the best ones to NCERT where there is a final screening. They are four separate competitions, one each for elementary teachers, secondary teachers, elementary teachers educators and secondary teacher educators. Cash prizes are awarded for the best papers. Contributors of the award-winning papers are invited to seminars to discuss their papers.

Indonesia

Introduction

In Indonesia, in-service training programmes for teachers and other educational personnel are conducted by the directorates of the Ministry of Education or agencies employing these personnel. Pre-service training programmes are conducted by schools for primary and pre-school teachers (SPG – *Sekolah Pendidikan Guru*) and Institutes for Teacher Training and Educational Science (IKIP), Faculty for Teacher Training (FKg) and Faculty of Education (FIP). SPG's are under the Directorate of Teacher Education and the Directorate General of Basic and Secondary Education, while primary schools are under the Directorate General. IKIP, FKg, and FIP which train secondary school teachers are under the Directorate General of Higher Education, while secondary schools are under the Directorate of Basic and Secondary Education. This means that the institutions preparing educational personnel and those which are employing them are under different administrative bodies. In-service training programmes are urgently needed for the following reasons:

1. There are differing interests between the institutions preparing teachers and other personnel and those employing them. Consequently, the pre-training programmes are usually irrelevant to the educational programmes in the schools where these personnel are expected to work.
2. Curricular reform is manifested by significant activities, starting in 1972.
   a) Experimentation through pilot projects for development schools in search of a system which is more efficient, effective, flexible, and

relevant to the national development programmes of the country.

b) Standardization of the curricula of primary and secondary schools, which implies changes in school objectives, restructuring of educational/instructional programmes, revision of subject matter contents, reconstruction of teaching materials, innovation in teaching-learning strategies, renovation in delivery system and teaching methods, reconsideration of evaluation systems, development of guidance, and reorganization of school administrative mechanisms.

c) Science development and educational innovation and technology, which imply new/additional roles of teachers and other educational personnel and need for updating of their capabilities.

d) The requirements of academic and personal competencies for teaching, which cannot be completely met in the pre-service training programme.

e) Requirement for personnel promotion, which implies additional or complementary knowledge, skills and attitudes.

f) The large number of under-qualified trained teachers due to 'crash' teacher training programmes designed to overcome the teacher shortage in the past.

Objectives

Considering the reasons stated above, the objectives of the in-service training programmes for teachers and other educational personnel are formulated as follows:

1. Adjustment of the trained teachers and other educational personnel to their actual roles and tasks in the real situation.
2. Up-dating of their capability to keep them in step with the ever changing world.
3. Promotion and up-grading of their positions.
4. Re-training of under-qualified teachers.

Target clientele

Those who undergo the in-service training programmes are categorized as follows:

1. Teachers:
    a) Pre-school and primary school teachers
    b) Lower and upper secondary schools teachers
    c) Lecturers at tertiary educational level (Universities, institutes)
2. Administrators:
    a) Supervisors
    b) Headmasters
    c) Other high-level educational administrators.
3. Guidance workers, counsellors, and teacher counsellors

4. Librarians
5. Teacher educators.

Training areas

Areas in which in-service training is offered include:

1. Educational reforms in general
2. Curricular reform including the understanding of new curricula
3. Educational innovation and technology
4. Subject-matter content, especially for Science, Mathematics, Social Studies, Bahasa Indonesia, and Health Education. For high school teachers, English, Arts Education, and skill training
5. Teaching methods
6. Evaluation
7. Guidance and counseling
8. School and class Administration and Management
9. Practice teaching

These areas are offered according to the needs of each clientele group.

Instructional materials

Considering the training objectives, various levels of clientele, subject matter areas, and specific training approaches and strategies, there are various types of instructional materials used in conducting in-service training programmes. These are:

1. Newsletters and leaflets
2. Articles in professional bulletines and magazines
3. Discussion papers
4. Narrative papers and simple textbooks
5. Modules and other self-contained materials

Existing approaches to in-service training of teachers and other educational personnel

Due to the variety of clientele with different needs for additional training, various in-service training programmes have been adopted in Indonesia. Five such programmes involve (1) courses for under-qualified primary school teachers; (2) courses for primary school teachers in curriculum implementation and in the use of new textbooks; (3) courses on modular teaching; (4) courses in Guidance and Counselling; and (5) courses of curriculum implementation in secondary schools.

1. **Courses for under-qualified primary school teachers**

This programme was set up to upgrade the level of education of the teachers to meet the required minimum to upgrade their teaching capabilities and to raise their administrative position. It is sponsored by the Directorate of Teacher Education and the Regional Offices of the Ministry of Education and Culture with the in-service course Institution for Primary School Teachers (Kursus Pendidikan Guru – KPG) as the executing agency. The centres are set up in the district capitals and are attached to the SPG. The courses use the SPG curriculum and are conducted by SPG teachers. Admission to the course is by application and if the number exceeds the available places, entrance examinations are held to select the participants.

The participants are primary school teachers without SPG certificates. They continue to teach at their respective schools while attending regular classes in the late afternoons. The course normally takes three years but due recognition is given for the credits already accumulated by each participant during the earlier pre-service crash training programmes.

Evaluation of the participants is carried out through formative evaluation for each subject area, grade examinations at the end of the school year, and final examinations at the end of the programme.

One problem experienced in the implementation of this programme is that the teachers might be involved in teaching in rotating school shifts.

2. Courses for primary school teachers in curriculum implementation and the use of new textbooks

This programme was organized for the introduction of the New Primary School Curriculum for immediate implementation and to train the teachers in the use of a new textbook package which has been prepared by a project to implement the teaching of new concepts in science, mathematics, social studies and language (Bahasa Indonesia). It is sponsored by the Directorate of Basic Education with the Project for the Development of Basic Education (Proyek Peningkatan Sasar: P3D) as the executing agency.

The respective course centres are attached to one of the representative primary schools in the area. The participants are nominated by the headmasters and they attend the course on two consecutive saturdays. During the period of the course (10–12 days), participants from the same school organize discussions among themselves under supervision of the mobile trainers.

The P3D produces and distributes the textbook packages to all primary schools long before standardization of the primary school curriculum. The mobile trainers consisting of key personnel from regional offices and SPGs are trained and re-trained annually in three-week training sessions to update their training capabilities.

Evaluation of the programme is carried out through informal tests of the participants and assessments made by the respective headmasters.

In implementing the programme in the remote areas, difficulty was experienced with regard to the communications system. Another problem was the repeated attendance by teachers because the primary schools are using the classroom teacher system.

3. Courses on modular teaching

These courses are organized to introduce the modular instruction system in development schools and to train the teachers in the preparation and use of these modules. They are organized by the Office of Educational and Cultural Research and Development (BP3K) with the Curriculum Development Centre and the eight institutes for Teacher Training and Educational Sciences (IKIP) as the executing agencies.

The centres are located in eight IKIPs and are staffed by module writers from the IKIP and personnel from the CDC. The curriculum consists of introduction to modular instruction and the techniques of writing, using, evaluating and revising modules.

The participants are teachers in charge in the development schools nominated by the respective headmasters. The courses last from 6 to 9 days and place training emphasis on practical knowhow through maximum activity learning and minimum of lectures.

Evaluation of the courses is through formative evaluation built into the training modules, and summative evaluation at the end of the course. Assessment of the programme is done simultaneously with the evaluation of the development school project.

4. Courses in guidance and counselling

The courses are organized with the aim of introducing guidance programmes in the schools, to train underqualified teacher-counsellors and to update trained school counsellors. The organization, structure, administration, strategies and evaluation of these courses are similar to those for modular teaching.

The participants are teachers in charge of guidance programmes and counsellors in development schools, while the staff is made up of lecturers from IKIP and personnel from the CDC who are specialists in guidance and counselling.

The curriculum consists of introduction to guidance programmes, techniques of guidance and counselling, diagnosis and treatment of learning difficulties, guidance administration, case studies and practicum or simulation in guidance.

Problems encountered in the implementation of this programme were the lack of sufficient opportunity for practicum, the heterogenous academic backgrounds of the participants and attitudinal constraints.

5. Courses for curriculum implementation in secondary schools

These are short courses organized and conducted by the Retraining Division of Directorate of Secondary Education with the objective of introducing new curricula in the schools and to train the respective supervisors, headmasters and teachers to understand these curricula and to be able to contribute to their successful implementation.

The courses are held at the CDC, with personnel from the CDC and the Directorate on the staff. The course is of two weeks duration and consists of introduction of the new curricula; introduction of educational innovation and technology; guidelines for curriculum implementation; instructional systems; evaluation; introduction of guidance programmes, school administration and supervision; and relevant subject matter areas for the respective teachers.

Participants are nominated by their respective superiors and attend similar programmes, differing only in emphasis depending on the participants' roles and functions. The stress of training is on the attitudinal component.

Evaluation is done by carrying out pre-tests and post-tests to assess the participants' achievements, and through general observation of their attitudes.

The problems encountered in this programme were the difficulties of assessing the participants' attitudes and the relatively excessive amount of materials to be used for the short training period.

Malaysia

Introduction

Malaysia is a young developing country with a multiracial society and has its own unique set of national issues and priorities that have to be resolved through a national policy on education. Although basically agricultural, it is also increasing the pace of industrial development with particular emphasis on the establishment of agro-based industries that will utilize the primary agriculture products of the country.

The education policy has therefore to be geared towards the attainment of national objectives with the forging of a national identity and unity of its people as necessary pre-requisites for economic progress and prosperity. In addition, the education system is charged with providing a sound general education as well as the development of specific skills and attitudes among the students, in an effort to meet the manpower requirements of different sectors of the economy. The system also has to develop in the young healthy attitudes towards living and an appreciation of the environment with the need for the conservation of natural resources for the present and future generations.

The effort to realise the aforementioned objective has involved the estalishment of certain priorities that need to be met, changes to the existing school curricula and the shifting of emphases. In the field of teacher education and training, these new priorities and changes meant changes in the content, mode and emphasis in the training of new teachers. Teachers already in the service need to be retrained or reorientated to take on new or additional roles and also to handle new school curricula through programmes of in-service education. At the same time, programmes to upgrade the scope and quality of education through the in-service training of teachers are not overlooked.

Existing approaches to in-service education of teachers and other educational personnel

The organization of in-service training of teachers and educational personnel in Malaysia may be classified as follows:

In-service teacher education: strategies and materials

1. **Courses conducted by institutions of higher learning – local and overseas**

Under the staff training programme of the Ministry of Education, teachers and educational personnel are selected to attend courses at universities and colleges on government scholarships in specific areas of studies. These may be specific short courses conducted by SEAMEO or other organizations: e.g. RECSAM; INNOTECH; RELC; and Educational Testing Service, U.S.A.

2. **Courses organized and conducted by the Ministry of Education**

Such programmes are usually planned and executed on a national basis and involve large numbers of teachers. They are usually organized in conjunction with policy implementation or curriculum development. These courses are conducted by various divisions of the Ministry of Education and in some instances with the co-operation of local institutions of higher learning.

3. The recent establishment of MESTI (Malaysian Education Staff Training Institute) is the result of a need for in-service training of the staff of the Ministry including teachers, administrators, headmasters and other school personnel.

Courses organized and conducted by the Ministry of Education

1. **Massive Training Programmes (Long Duration)**

These in-service programmes involve large numbers of teachers and the courses are held over a longer period. They are conducted during the common vacations of the schools and teacher training colleges so that resources of the schools and colleges might be fully exploited. Several course centres are organized simultaneously to provide training to large intakes and these centres follow common curricula and have common assessments.

Examples are: (a) Basic Professional Training Courses for Temporary Teachers; and (b) National Language Proficiency Training Courses (for implementing Bahasa Malaysia as a medium of of instruction).

2. **Supplementary courses for trained teachers**

These courses for trained teachers are conducted on a full-time basis during the term as part of the normal programme of the teacher training colleges.

a) **Specialist Teachers Training Institute, Kuala Lumpur**

One year supplementary courses are offered in the following subjects: (i) Physical Education; (ii) Music Education; (iii) Art Education; (iv) Audio-visual Education; (v) Library Science; (vi) Remedial Education; and (vii) Special Education (Visual handicaps and hearing handicaps).

b) **Temenggong Ibrahim Teachers College, Johor Bahru**

One-year supplementary courses are offered in the following subjects: (i) Home Science Education; and (ii) Agricultural Science Education.

c) **Language Institute, Kuala Lumpur**

Three-month supplementary courses are offered in the following areas: (i) Teaching of Bahasa Malaysia (National language); and (ii) Teaching of English as a Second Language.

d) **Teachers' College for Health and Nutrition Education, Kuala Trangganu**

A 3-month supplementary course in Health and Nutrition Education is offered. In 1980 it is proposed to provide additional courses in the following areas: (i) Educational Guidance and Counselling; (ii) Mathematics Education; and (iii) Science Education.

Participants of the one-year supplementary courses are selected at interviews of short-listed applicants. For shorter courses, candidates are selected from a list of nominees from each state.

Successful applicants are awarded study leave on full salary for the duration of the course. The Government also provides an allowance to cover travel, lodging and subsistence.

3. **Miscellaneous short courses for trained teachers**

A wide variety of shorter courses, seminars and workshops are constantly being conducted by the different divisions of the Ministry of Education at national, state or district levels. These courses or workshops may be organized to disseminate new information, approaches, procedures or techniques to teachers as part of a programme of wider social and health education or similar programmes or for implementing curriculum changes.

For widely taken school subjects such as languages, the arts and sciences, the strategy employed is to train key personnel at the national level. These key personnel then organize courses at state and district levels. In this way, the programme is disseminated to all teachers likely to be involved in the programme.

Programmes related to community and national development

Two examples of in-service course programmes for teachers that are linked to community and national development efforts are in the following areas:

1. Agricultural science education

Agricultural science was introduced as a subject in lower secondary schools in 1965. Teachers were trained at Temenggong Ibrahim Teachers College, training facilities at the college were strengthened by a joint project of UNDP and the Government of Malaysia. Input for expansion of agricultural science education in the schools was further increased by the role of the college in offering a supplementary course in agricultural science education.

As an extension to the project to train teachers of agricultural science, the college, at its own initiative, started a Mobile In-service Unit in 1974. This unit organizes and conducts in-service courses (workshops) for trained teachers of agricultural science at district level during weekends, usually using a school as the course centre.

2. Health and nutrition education (orientation courses)

In 1968 the Ministry of Education and the Ministry of Health launched a joint school health programme. This programme is the sum total of activities designed to protect, promote and maintain optimum health of pupils and school personnel. The efforts were therefore geared towards the promotion of healthful school living and the development of desirable knowledge, attitudes and habits pertaining to health. These efforts were to be undertaken in the perspective of the health of the community as a whole. When the school health programme is fully operational, it will integrate the school with the total community programme particularly in services such as maternal and child health, environmental sanitations, control of communicable diseases, health education and general health care and services.

The Ministry of Education plays a major role in the National Applied Food and Nutrition Project (AFNP), an important development project which has as one of its main objectives to infuse a sense of self-reliance and commitment in improving the quality of life among the people, especially those in the rural areas who form about 70 per cent of the population.

The Ministry of Education is responsible for organizing a gigantic supplementary feeding scheme for 400,000 school children with an expenditure which amounted to M$ 17.8 million in 1978. Other activities relating to the AFNP are:

a) Improvement of health and sanitation in schools, canteens and homes;

b) Health and nutrition education and home science in schools; and

c) Agricultural activities in schools: agricultural activities include (i) food crop and vegetable gardening and (ii) fish cultivation and poultry raising.

To implement the Joint School Health Programme and the National Applied Food and Nutrition Project at the school level in particular and in the home in general, various levels of in-service courses for teachers have been organized since 1970. Two-week orientation courses have been conducted at national level for training key personnel, followed by similar orientation courses organized by key personnel at the local training centres with the co-operation of various departments of health, agriculture, veterinary, police and fire services.

An additional effort to strengthen the training programmes is the organizing of three-month full-time supplementary courses in health and nutrition education for trained teachers at one of the training colleges.

Strategies used for in-service education of teachers and other educational personnel cational personnel

1. Administration and funding

All courses organized and conducted for teachers are co-ordinated by a central committee at the Ministry of Education with the Teacher Training Division as the secretariat. The divisions of the Ministry submit five-year proposals as well as detailed yearly programmes for consideration by the committee. The committee's functions are to study, modify, strengthen or reject the proposals and also to co-ordinate the programmes proposed by different divisions. Consolidated budget proposals for in-service education are presented to the Treasury (Central Agency) for approval and depending on the success of the bids, re-allocation of funds will be determined by the committee.

The various divisions will then carry out the approved programmes. The performance of the programmes is monitored by a system of reporting to the secretariat and also through accounting procedures.

As the programmes involve government employees the expenditure (fees, travel, subsistence, etc.), are fully borne by the government. This strategy is being followed to ensure that teachers of all schools in the country have the opportunity to benefit from the in-service programmes.

2. Programming of courses

In-service programmes that form part of a national project are conducted at two levels – a shorter, more extensive exposure programme at dispersed centres, utilizing the key personnel concept, to initiate and encourage involvement of the participating teachers; and a longer, more intensive programme to be conducted centrally where in-depth training may be provided to smaller intakes.

Programmes that require a large number of participants to be involved at one time are held during weekends or, for courses of extended duration, during the school vacations. This is necessary because of the following considerations:

a) The participants are serving teachers who cannot be released from teaching duties without causing disruption to the school programme.

b) Most of the staff planning and teaching the courses comprise lecturers from teacher training colleges and teachers who have been trained as key personnel for the programme.

c) Availability of classrooms and hostels for use as in-service centres.

3. Evaluation of programmes

Mechanisms for the evaluation of the in-service programmes are organized as follows:

a) **Basic training programmes, full-time supplementary programmes and language proficiency programmes**

These programmes, because of the extended duration and depth of training, have built-in evaluation and assessment components. In addition, school inspectors provide continuous reports on performance of teachers in the schools.

b) **Short training courses, workshops and seminars**

The evaluation of these programmes are more difficult. They are usually assessed through surveys and questionnaires distributed to participants and through other indirect methods of evaluation.

4. Problems and constraints

The evaluation of the success or failure of training programmes has always been a difficult task. Many programmes have had to be left to indirect methods of evaluation.

The use of the 'key personnel' approach to accelerate training programme implementation (similar to 'Echo Approach' in the Philippines and the ripple approach of Thailand) has had the drawback of the 'dilution effect' on second or third generation courses.

In the effort to upgrade the quality of teaching the area of continuing education for teachers remains to be effectively pursued. Although training is provided free by the government, and for temporary teachers there are sufficient incentives of permanent employment with the attendant benefits, the training programmes for trained teachers have to be linked to incentives which might take such forms as opportunities for upward mobility in the service and awards of credits towards post-graduate programmes – incentives already employed in some countries.

Nepal

Introduction

As in most other Asian countries, the school enrolment of Nepal increased tremendously because of the population explosion and the free access to primary education. The large number of pupils who sought entry to the schools created such a great demand for teachers that even untrained ones had to be employed. The Institute of Education, which trains teachers, cannot cope with the demand.

According to the Ministry of Education Yearly Statistical Report, 1978-79, only about 40 per cent of the total number of teachers at the various school levels are qualified or trained. In the primary school level, only 37 per cent are trained teachers while in the secondary level, 56 per cent. Because of this condition, the primary concern of in-service education is to ease the back-log of untrained teachers in the service. For the present there is little attempt to retrain teachers who trained long ago. Moreover, at present there are no differences between pre-service and in-service education; the same curriculum and activities are used in both types of training.

Pre-service education suffers from a lack of adequately trained teacher educators. Most of the primary teacher educators are either underqualified or inadequately trained. They are generally B. Ed. degree holders, hence are trained to teach in secondary schools and not to train primary school teachers.

The objectives of in-service education are:

1. to educate untrained teachers already in the job; and
2. to train them first and foremost, for teaching.

It should be pointed out that the teacher training programme is not yet able to provide training for renewal or updating of the knowledge and skills of teachers.

Strategies for in-service education

To achieve the above mentioned objectives, the Institute of Education, Tribhuvan University has adopted the following strategies besides its regular in-service programmes:

1. **Extension training.** This programme trains untrained secondary school teachers through evening classes.
2. **Straight programme.** This programme tries to meet the need for science and mathematics teachers for lower secondary schools. Teachers for this level are harder to get because once a teacher gets a Certificate in Education (I.Ed.), he proceeds to work for a B.Ed. to qualify him/her as a secondary teacher. The wide gap in the salaries of lower secondary and secondary teachers is what prods the I.Ed. certificate holder to study further. The straight programme has academic viability in that it trains teachers for lower secondary schools.
3. **On-the-spot training.** This programme allows primary teachers with School Leaving Certificates (S.L.C.) in the rural areas to train without leaving their teaching job. Teachers cannot be allowed to leave for training because substitute teachers are not easy to get. One advantage of this programme is that training comes with actual practice or actually employing learned skills and knowledge immediately.
4. **Training of primary teachers of remote and rural areas**

   Two approaches have been adapted to train under S.L.C. and untrained primary teachers of rural and remote Himalayan areas – one through the Distance Teaching Programme (on-the-job type of training); the other, through the Remote Area Teacher Upgrading Programme.

Problems

1. Lack of long range planning to train under-qualified and untrained teachers and to retrain the trained ones. There are no plans which could clear the backlog of untrained teachers by a target date, nor one which will provide renewal education to update the knowledge of once-trained teachers.
2. Lack of continuous feedback mechanism to study the effectiveness of the pre-service and in-service education programmes. There have been some sporadic attempts to study the effectiveness of the training programmes. However, suggestions and recommendations are not implemented. The same faults are repeated again and again. There is a need for regular and continuous feedback to help improve in-service education.
3. Lack of adequate facilities – most of the primary teacher training campuses have very few physical facilities.
4. Lack of adequate funding – In-service training costs a lot in terms of salary, travelling and other expenses. Without adequate funding, effective training cannot be implemented.
5. Lack of transportation and communication facilities particularly in the remote and rural areas.

Philippines

Introduction

Although all teachers in the Philippines have academic qualifications to teach, major innovations and national policy shifts have necessitated a continuing mechanism to ensure teacher competence. The innovations involved curricular modifications on content and methodology. Some concerned new approaches such as those in the new mathematics and the new social studies; others, new material, such as those for drug education. Curricular revision and the implementation of the bilingual education policy, the "Return to the Basics" movement and the emphasis on work and economic productivity in the curriculum have also posed urgent needs for in-service education for teachers.

As early as 1960 the Ministry of Education and Culture embarked on an accelerated and continuing in-service education. At the time a highly centralized system existed. The difficulty of administering education for 40 million Filipinos spread over 7,000 islands, differing in culture, language and environment had long been recognized. In the mid- 1970s, a decentralized administrative organization was adopted. Each of the 13 regional offices was charged with the responsibility of administering education, including in-service training for teachers, in the region.

Objectives of in-service training

1. To up-grade teachers' knowledge of curricular content and methodology.
2. To keep teachers abreast of developments in education and with changes in policies affecting programme thrusts.
3. To train teachers for roles demanded by new needs.
4. To raise teacher qualifications through either formal degree or non-degree courses.

Strategies and approaches

To attain the above objectives the following methods and approaches have been adopted:

1. Seminars and workshops in varying time durations for different groups of educational personnel.
2. Summer institutes for teachers.
3. Formal course work in colleges, universities and other teacher training institutions for degree or non-degree programmes.
4. Non-formal education schemes.
5. Dissemination of knowledge through self-learning materials.

1. **Seminars and workshops.** These vary in terms of level, target group, specific purpose, and funding agency.

   a) **By level**

   The structure of the MEC necessitates the organization of seminars/

workshops at the various levels. Teachers and other school personnel who attend the in-service training programmes at the national level are expected to 'echo' at the regional level when they return to their stations what they have learned. In turn, those who attend regional seminars are expected to 'echo' the training at the division or province level. And so on down the line until the series of 'echo' seminars reaches the classroom teacher. This strategy, however, has been found to be ineffective because the quality of the training has dissipated by the time it reaches the district level[1]. To remedy this situation, many offices of the MEC have embarked on the 'team' approach to in-service education. The training teams, which may consist of teachers from both the regional and division offices, are responsible for training teachers at the regional, division and district levels.

b) **Seminars for specialized clientele**

Examples of this type of seminar are the training programmes intended for school district supervisors[2], health guardians, researchers, drug education personnel, etc. These seminars are in response to new programme thrusts and needs for new roles. (i) The Development Programme for School District Supervisors is a 5-week live-in seminar-workshop conducted at the Baguio Vacation Normal School, Teachers' Camp, Baguio City. It is designed to develop the managerial leadership abilities and inter-personal skills of district supervisors. A similar workshop on the management of educational innovations was conducted by the College of Education in 1977 for administrators of regional and division offices. Recognizing the need to develop effective management skills in administrators of regional and division offices, other tertiary institutions have engaged similar courses. (ii) A seminar-workshop conducted by the College of Education involved the training of personnel for research and research utilization, while another was designed to equip health education personnel with the knowledge, skills and attitudes necessary for preventive drug education.

c) **Long and short seminars**

Seminar-workshops range in duration from one or two days to 5 or 6 weeks. Those intended for specialized personnel take a longer time, while those intended mainly for information dissemination are usually short. The long ones are usually subsidized by agencies other than the MEC, for example the EDPITAF[3], the UNICEF, WHO, NSDB[4], or the Fund for Assistance or Private Education (FAPE).

---

[1] A similar 'dilution' effect was pointed out in an analogous strategy used in Malaysia.

[2] This in-service strategy is discussed in more detail in Chapter Two.

[3] Education Development Projects Implementation Task Force.

[4] National Science Development Board.

2. Summer institutes

Summer institutes are conducted yearly by the Regional Science Teaching Centres (RSTC) with funding from the National Science Development Board. The institutes are designed to upgrade elementary and secondary school teachers of science and mathematics. The staff and lecturers of the RSTCs are masteral degree holders from the UP College of Education and De La Salle University under the UP-DLSU-NSDB scholarship programmes[1].

Summer institutes are also conducted by teacher education institutions, either state or private, to upgrade teachers of other subjects.

3. Formal course work

Formal degree and non-degree courses at the graduate level are offered in practically all teacher education institutions in the country. Graduate programmes leading to the MA, MEd., MAT and MST degrees cater to teachers who want to upgrade their qualifications or to keep abreast of trends and innovations in education. The MATEA is a master's degree programme conducted in a number of agriculture-based institutions. It is intended to equip teachers with fundamental agricultural skills and knowledge that will make them effective leaders and active agents of community and national economic development programmes.

Teachers and other education practitioners enrol in courses as either part-time or full time students. Courses are usually scheduled on Saturdays or after office hours so that teachers can study without upsetting their work schedules. Those who come from far places prefer to enrol in summer courses instead. In five or six summer terms, a teacher usually meets the course requirements for a nonthesis masteral degree programme. It is interesting to note that teacher education institutions all have large enrolments in the summer term.

The Baguio Vacation Normal School offers courses at both the undergraduate and graduate levels during the summer term. It attracts teachers who want to study and at the same time avail of the pleasant Baguio climate. The school also offers short-term leadership courses on the different programmes of the MEC.

Doctoral-degree programmes are also available in a number of large universities and teacher education institutions. The College of Education and the Philippine Normal College are both offering doctoral programmes for upper-level and key personnel in the educational system. A majority of key educational personnel holds doctoral degrees because advanced degrees are given several points in the criteria for promotion.

4. Non-formal education approaches

Considered non-formal are in-service education schemes not conducted in a formal school or classroom setting. Examples of these are Distance Study, University of the Air, and "Reach-Out" and extension activities of government agencies and teacher education institutions.

---

[1] The MAT programme of the UP College of Education is discussed in greater detail in Chapter Two.

The Distance Study Plan is intended to disseminate information on the different programme thrusts of the MEC and to help achieve national development goals such as health and nutrition, environmental education, population education, and food sufficiency through the Green Revolution Programme. At the same time the programme offers opportunities for teachers to upgrade their professional qualification through monitoring of lessons aired over the radio or through cassette tapes and printed materials available in resource centres. The programme is linked with institutions which grant graduate credits for the work done by the teacher participant.

Lately the MEC, through the EDPITAF, launched the Continuing Education for Teachers (CET) project which aims to improve the quality of education by upgrading the content knowledge and skills of teachers in the different subject areas. A second project, Radio-Assisted Teaching in Elementary School (RATES) is a total education package for the teaching of Filipino (the national language) in Grades IV, V and VI.

Informal extension activities of faculty of teacher education institutions, through involvement as resource persons, speakers or participants in seminars and workshops can be subsumed under non-formal approaches to in-service training of educational personnel. In compliance with the mandate for all government employees to serve 15 days in rural areas every year, many faculty members of state colleges and universities, as well as staff of the MEC, have chosen to spend the 15-day period working informally with teachers or conducting meetings and seminars for rural school teachers.

5. **Self-learning materials**

Modules and other self-learning packages have been devised to supplement other in-service methods. Sample modules on teacher education are those produced by Torralba (1978) and Baldo (1979) in curriculum materials projects funded by NSDB. The Philippine Normal College, the College of Education, the National Research and Development Centre for Teacher Education, as well as other units of the MEC have also produced self-learning materials for teachers, besides publishing results of researches on teaching-learning.

Decentralized Learning Resource Centres have of late been set up around the country. The centres are intended to help teachers attain professional self-renewal through special materials and educational media.

Problems of in-service education

1. Inadequate co-ordination of in-service approaches, thereby resulting in duplication of effort, overlapping content and piece-meal measures.
2. Inadequate evaluation during and after the training. Only a few in-service programmes include a follow-up of the personnel trained.
3. Poor co-ordination in the selection of in-service participants, particularly those being trained for new roles. This leads to the overtraining of some personnel and a decrease in the impact of the in-service courses.

4. Personnel trained for new roles are not always placed in positions which will maximize the use of their training.
5. Teachers and their administrators/supervisors are seldom simultaneously trained on innovations. Often, teachers are not able to make use of the skills and knowledge learned because of resistance or non-co-operation of their principals.
6. There is not as much emphasis on attitude change as on knowledge change. After in-service training, teachers leave with more knowledge but holding on to the same attitudes they came with.
7. In-service seminars entail expenses which cannot be fully borne by sponsoring agencies. Because of financial constraints teachers who can afford extra costs of transportation, board and lodging usually have more chances to attend seminars.

   Funding also explains the inadequacy of resource and learning materials for in-service courses, as well as the insufficient use of educational technology.

Sri Lanka

Introduction

All teacher training in Sri Lanka is handled by the Curriculum Development and Teacher Education Centre of the Ministry of Education. The Curriculum Development branch is responsible for in-service programmes while the Teacher Education branch, under which comes the Training Colleges, handles pre-service training of teachers. As Sri Lanka is a small country with a student population of 3.3 million and a teacher population of 132,000 serving in its about 9,000 schools, centralized policy-making and decentralized administration have become established features. With the introduction of free education in 1945 and the use of the mother tongue as the medium of instruction, there was greater demand for education, for better facilities and the improvement of the quality of education. Towards the end of the last decade, this democratization of education resulted in the creation of a large number of educated unemployed. Thus at the beginning of the present decade several far-reaching educational reforms were implemented to bring education in line with the changing socio-economic structure of the country. The 1972 reforms of secondary education and the 1974 curricular changes in primary education necessitated speedy and effective in-service teacher training programmes.

Problems

As mentioned above, intensive teacher training and curricular formulation had to be effected at two levels:

1. The secondary level (Grades VI to IX) – where new subjects like science, mathematics and social studies were introduced.
2. The primary level (grades I to V) – where a complete change was envisaged not only in content but in methodology.

Thus the Curriculum Development and Teacher Education Centre had to find solutions to several problems:

a) Training of various categories of teachers of various subjects at the secondary level since new subjects as well as new curricular materials were to be taught.

b) Formulation of a new primary curriculum that had to be tested before implementation by about 10,000 grade I teachers.

c) Preparation of syllabuses to suit the changes made in content as well as methodology in secondary education.

d) Overall implementation at the district level where trained personnel was required to effectively carry out the new programmes.

e) Preparation of supporting materials for teachers and students.

Existing approaches to in-service education

1. General objectives

In Sri Lanka the new policy orientations in education which are spelt out in the Education Sector Paper 1978-1982 lay emphasis mainly on the development of education with a view to facilitating the growth of the personality of the pupil in order to enable him to maintain his self-respect and dignity. The child should grow up with suitable experiences, skills and attitudes which he can apply as a creative member of the society.

Secondly, the unparalleled educational expansion in terms of numbers without appropriate regard to the qualitative aspect of education posed a grave problem to educational planners in revising the curricular material.

2. Specific objectives

a) Overall accomplishment in many fields – i.e., training of the primary as well as the secondary teacher.

b) Teaching of environmental studies and science through an integrated approach in the primary school.

c) Teaching of mathematics in the primary school.

d) To effect certain qualitative changes in the teaching process of the one–teacher schools.

3. Strategy used for the in-service training

Some strategies employed for the in-service training of teachers and other educational personnel are:

a) Regular and continuing in-service programmes, covering the field of secondary education.

b) The 3-year pre-service general and specialist training given at the training colleges.

c) Special strategy of decentralized training programme adopted in the field of primary education.

d) The three-year postal (correspondence) training.

e) Short-term direct contact training programme carried out for 3 months by the teachers colleges.

f) Special training projects – for small schools, development projects and the project for the education of handicapped children.

a) Regular and continuing in-service programmes

In secondary education as has been noted above, there were changes in content as well as methodology brought on by 1972 reforms. The children who were in grade VI in 1972 had to sit for the National Certificate of General Education (NCGE) at the end of 1975. Thus a speedy programme of on-the-spot in-service training programmes had to be carried out. Regular in-service training programmes are being conducted (monthly as well as fortnightly) to train teachers to enable them to be familiar with the new materials and methods in different subject areas– science, mathematics, English, social studies, etc. For this purpose permanent "In-service Advisers" have been selected from among teachers themselves. These were the teachers who had performed well in their teaching career and who had shown very good results. These teachers are called *Master Teachers.* Training is given to them in their respective subjects by the Curriculumn Development Centre (CDC). Every Education Region in the island has a set of Master Teachers.

The Master Teachers conduct in-service courses at the circuit centres. For example, the science teacher would be called upon to attend the five hours of classes on a prescribed day. At this session, the lesson units that are to be followed in the coming month are presented and the methodology, special problems, supply of supporting material, audio-visual aids, children's practical work, writing of lesson or unit notes are discussed at length. Educational innovations that could be integrated and the evaluation processes would also be discussed.

b) The 3-year pre-service general and specialist training programme conducted at the training colleges

Up to 1978, this was a two-year programme. But from 1979, certain changes have been effected in the procedure of training. A batch of teachers are admitted to the training colleges in January. They undergo training in content and methodology for a period of six months, and then they have to go back to schools for practice teaching for another six months. When one batch of teachers goes back to schools for practice teaching, a second batch of teachers is admitted to the training college. This procedure of 'staggered' training is adopted for these purposes:

i) to solve the question of teacher shortage in remote areas – especially in the special subjects – science, maths, English, and others; and

ii) to give the trainees good practical experience in methodology of teaching under the guidance of a trained teacher and the Headmaster of the school. Six weeks of practice teaching conducted in the earlier programme was found not sufficient.

c) Strategy in primary education

Of the educational reforms that have been carried out in Sri Lanka in the present decade, it was in the field of primary education that the most far-reaching changes were effected.

CDC Programme: Because of the situation in the primary classes prior to 1974 the curricular planners of the CDC were faced with the following tasks and concerns:

i) Improvement of the quality of education;
ii) Ensuring that teaching is activity-centred;
iii) Giving the child freedom of learning;
iv) Transformation of the classrooms into exploratory workshops; and
v) The massive task of training nearly 10,000 grade I teachers within a period of one year.

A plan and course of action was drawn up by the CDC and the strategy used was as follows:

i) **Formation of the Primary Education Curriculum Committee (PECC)**
The responsibility of designing curricular content, methods of teaching and supportive services were entrusted to this committee under the CDC.

ii) **Training of "Pilot" teachers**
At the outset 500 teachers were selected as "Pilot teachers". They were to be trained first by the PECC. These pilot teachers tried the new programme in their schools. The experiences of the pilot teachers were made use of in the preparation of the primary syllabus.

iii) **Briefing the heads of schools**
It was realized that however committed the teachers might be, the success of the programme in the pilot schools depended to a larger degree on the rapport between the pilot teachers and their heads of schools. Thus a briefing was given to these heads of schools about the objectives and the processes that are to be carried out under the new scheme.

iv) **Supervisory personnel**
The Circuit Education officers who were in charge of circuits attended the in-service training programme held for pilot teachers because their close supervision of pilot classes and timely guidance was sought.

v) **In-service organization at district level**
The pilot teacher training programme was very successful. But the actual problem was of training about 10,000 primary grade I teachers. The strategy used was of decentralizing administration, and the teacher training programme. A District Primary Education Committee (DPEC) was formed under the guidance of the Regional Director with a co-ordinating officer and the District Secretary to carry out the in-service programmes in the District. The basic training was given to the mem-

bers of the DPEC at the CDC. Thus the DPEC, with the help of the Circuit Education Officers (CEOs) and the pilot teachers, carried out the in-service training programme at the district level.

d) **The three-year postal (correspondence) training course**

Organized by the Teacher Training branch of the Ministry of Education, this is a "postal" training course where all the relevant materials are sent to the trainees by post. Trainees have to do a certain amount of "assignments". Further, every year the trainees are given training at a trainee college for about six weeks through a direct contact course.

e) **Short-term direct contact training programmes**

These are direct contact courses of three months, one month, or two weeks' duration organized by the relevant sections of the Ministry, covering special subject areas, such as religious education and language. It is an intensive course, where the techniques of teaching and changes in subject matter are discussed.

j) **Special training projects**

There is a large number of small schools in the island. Some are one-teacher schools. There is a special project called the "Small Schools Project" where the problems pertaining to small schools are looked into. Supply of facilities to small schools is a special concern of this project.

In additon, there are certain courses geared to the training of teachers in relation to the education of handicapped children.

Provision for evaluation and follow-up

Various measures have been adopted to conduct follow-up evaluation activities:

1. The Master Teachers themselves were indirectly supervising the work in their respective fields. They were to guide, advise and correct where necessary the work of the teachers. In addition, there was a set of specialist circuit education officers covering such subjects as maths, science and English who were directly responsible for the evaluation of teachers' work.
2. The CEOs and the heads of schools who had been trained earlier inspected the teachers' work and gave advice wherever necessary.
3. For primary evaluation, a 'Sectional Head' with a sound knowledge of the primary changes that were effected was appointed. His main job was to co-ordinate primary work in the school.
4. Follow-up through a newsletter named *Experiences* was in fact a great help in assuring effective nationwide curriculum implementation. *Experiences* comprised the experiences of the teachers, supervisory work done by the heads of schools and the CEOs and appreciations by the parents.

Problems and constraints

As we have noted above, the in-service teacher training programme in Sri

Lanka was the direct result of the 1972 reforms of Secondary Education and 1974 changes in Primary Education. The in-service training programmes were carried out at several levels, and from observations made over the years, the following problems are noted.

1. Due to the transfer of teachers, in-service programmes had to be conducted continuously.
2. In certain circuits, the remoteness of schools caused low attendance at in-service classes. In such areas the "mobile in-service training programme" of Malaysia, or India's experience of "correspondence-cum-contact courses", might be adapted to advantage.
3. Lack of follow-up of the training especially at the circuit level. In certain circuits no systematic check is done on trainees' work.
4. Lack of appreciation of the teachers' work. Teachers who work very hard often do not get the necessary recognition.
5. Problem of facilities. In remote areas even the school development society is not in a position to provide the necessary facilities to the school.
6. There is an urgent need of "Resource Centres" at the District level, as has been implemented in the Philippines.

Thailand

In-service education for administrators

In-service education is normally the responsibility of certain departments. Its main objectives are:

1. to orientate administrators on policy and operational plans, and
2. to upgrade the quality of work in general and specific cases.

The departments which administer schools or colleges are the ones running in-service courses. Occasionally, in-service education is organized in special areas in co-operation with any of these three departments: Department of Fine Arts, Department of Religious Affairs and Office of the National Culture.

The Ministry of Education had long realized that in-service education of the first type for administrators was scattered and thus not economical. The idea for the Institute for Training High Level Personnel was therefore conceived in 1977. An *ad hoc* committee was appointed to prepare a project to set up the Institute. In 1979 the Institute came to existence. It has a director appointed with a small staff. The Institute is expected to start its in-service functions normally in 1980.

As presently conceived, the Institute will run in-service education for prospective educational administrators for the Ministry of Education, i.e. for those who will run the schools and administer office work in departments. The course will concentrate on professional development in administration and organization. Certain specialized areas like research, evaluation, guidance and counselling will be kept to a minimum. Likewise, in foundation courses such as educational sociology, philosophy and psychology, only basic knowledge which will help the administrator perform his responsibility efficiently will be taken up. Practicum and observation as well as seminars will be the highlighting activities of the training. The duration of the training will vary according to the position level to which the trainee will be assigned.

When the Institute is fully functional and developed, the in-service training programme for the development of administrative skills will no longer be under the various departments of the Ministry of Education.

In-service education for teachers and supervisors

The training of teachers and supervisors is meant to upgrade the standard of teaching-learning at the school level. The prime objectives are:

1. To equip the trainee with knowledge and skills to prepare lesson plans and instructional aids, to conduct various activities, and to accomplish records/reports.
2. To develop his ability to deal with colleagues, parents and the community.

Supervisors, on the other hand, are trained to design and develop in-service training programmes for teachers. They must have the knowledge and skills needed for supervision as well as the ability to deal with different types of people.

The duration of training varies from one week to three months, depending on the type of trainee – teacher, subject master or supervisor.

Problems and constraints

Financing is a major problem. Without sufficient funds it is difficult to run in-service courses long enough to ensure that the trainee will perform sufficiently after the training.

Supplies and materials for the training are not adequate. Although regarded as essential, fieldwork and observation activities are not feasible. Trainees can be exposed to video-tapes, films or slides during the training course, but it is not usually possible to use these in the rural areas.

Overview and summing-up

The programmes discussed above reflect how each country trains its teachers in the service in order to meet both national and local needs. In-service education which is tied to national policies or shifts in national priorities tends to be massive. Programmes, such as those for specialized personnel, are more limited and structured in their approach to in-service training. Those intended to up-grade teachers tend to be short courses for large groups and are timed during school vacation periods.

The factor of country geography is reflected in programmes which involve radio, distance teaching and correspondence-cum-contact courses. On-the-spot teacher training, remote-area teacher education strategies and mobile training teams for in-service education reflect consideration of economic, geographic and other contingency factors in a number of countries.

Some programmes are in line with national policies – like those on upgrading of teachers' competencies in the national language; others are 'crash' efforts to give primary school teachers the knowledge and skills to qualify them to teach the country's children. In a number of cases, multiple approaches are used to attain the same objectives.

A number of programmes are common to two or more countries, a few are country-specific. This report does not attempt to describe all existing in-service strategies in the member countries, but it gives a representative sample of alternative approaches which have proved themselves viable in the context of country situations and conditions.

The observable trend is the increasing reliance on self-learning materials as support for formal contact courses, on-the-spot teacher training, remote area teacher education and informal schemes like distance teaching through radio, television and correspondence. The significant role of learning resource centres is also becoming more evident. The large numbers of teachers in the service who need to be trained and retrained for new roles indicate a need to seek and try out alternative strategies to meet the countries' educational needs at minimum cost.

Chapter Two

SELECTED STRATEGIES OF IN-SERVICE EDUCATION

The Study Group discussed selected programmes for in-service education and identified those that should be sufficiently amplified to share the information with other participating countries. One or two of the approaches and strategies mentioned in Chapter One are highlighted and more fully described below to reflect how each participating country specifically meets its needs for more and better-trained teachers and other educational personnel.

The programmes discussed in this chapter were singled out for more detailed discussion by the Study Group members for these reasons: The experiences or strategies were: (1) unique; (2) innovative; (3) feasible of adoption by the member countries; and (4) demonstrate a co-ordinated approach to the training or upgrading of teachers and other educational personnel.

The note on the Bangladesh Education Extension and Research Institute describes an agency specifically charged with the responsibility for in-service education. Whereas in most of the member countries, in-service education is a joint responsibility of teacher training institutions, the Ministry of Education and other relevant agencies, in Bangladesh a special agency has been established exclusively for in-service training programmes.

The correspondence-cum-contact approach used in India involves minimal course contact in order to allow teachers to train while in service without disrupting their work schedules. The same can be said of the Distance-Teaching Programme of Nepal. Both the correspondance and distance-teaching approaches are responses to the difficulty (in some cases, the impossibility) of getting substitute teachers. The strategies are also designed to deal with distance, which is a major constraint in countries covering widely scattered and sometimes inaccessible regions.

The member countries' attempts to spare teachers from spending time, money and effort in travelling to and from training centres is evident in the 'mobile team' approach used in Malaysia and Nepal. This approach also underscores the need to work with and train teachers on the job.

The training of key personnel for specific tasks and skills is done through more structured approaches as shown in the case of Philippines and Thailand. The former does it to live-in seminar-workshops through formal course work of either the degree or non-degree type. Thailand conducts courses through an Institute designed specifically to train administrators.

Thailand's programme for in-service training of teachers and educational personnel in connexion with the implementation of major curricular changes as mandated in the national education plan of 1977 demonstrates a co-ordinated approach for preparing both the personnel and the instructional materials at minimum cost of time, money and effort. The strategy underscores linkages between the different departments of the Ministry and teacher education institutions to ensure the successful implementation of the Plan. The strategy incorporated follow-up and evaluation of the training of teachers and the preparation, production, distribution of the instructional materials.

Indonesia's simultaneous re-training of thousands of teacher educators, lecturers and school teachers demonstrates a massive effort to raise competencies of educational personnel from all levels. The use of modules and other self-learning materials as well as the role of resource centres as support for the training was emphasized in the discussions of the strategies.

The Bangladesh Education Extension and Research Institute; a new structure for In-service Education

Introduction

In 1947 when Bangladesh (East Pakistan) came into existence, it had only one Teacher Training College and one Primary Training Institute for workers. In 1952 the women's institute was transferred to Mymenseng and was upgraded to give B.Ed training. The Teacher Training Colleges in Rajshahi and Comilla were established in 1956 and 1963 respectively. However, colleges do not give refresher courses or in-service training to untrained teachers. In 1959 the Education Extension Centre was established to meet the increasing demand for teachers.

Since 1960 the Centre has provided short courses for various educational personnel. It aims to give opportunity to each trained teacher to take a refresher course five years after being trained. Untrained teachers could take in-service courses six months after they are hired. Teachers already in the service need to be retrained or oriented to take on new roles or to handle new curricula through programmes of in-service education. Headmasters and Principals undergo training in administration when they are invited.

The Education Extension Centre also invites college professors and lecturers of English, Bengali (literature), History, Geography, Commerce, Biology, Chemistry, Physics, etc. Emphasis is given to such subjects as General Psychology, Adult Psychology, History of Education and Principles of Education. A library science course is offered to librarians and library staff.

How the Centre operates

Every month, eight courses of study are organized by the Centre. About 1,500 letters are sent to the Headmaster or Headmistress of 1,000 schools. Copies of the letters are also sent to the District Education Officers for information so that they can help teachers if necessary. Announcements are also made in newspapers, on TV and radio.

The names of teachers nominated by the headmasters and headmistresses are sent, along with biographic data and a certification that the teachers had not taken refresher courses in five years. Final selection is based on set criteria. When the successful candidates come to the centre, they are registered. They are given a pre-test against which their post-training performance is compared.

Lecture, discussion, demonstration and observation are the methods commonly used in the courses. Audio-visual aids are widely used in all the courses. Resource persons from colleges, universities and research insittutes deliver lectures on content in different subjects. They come on request and are paid honoraria.

Field trips are arranged for every course. The activity is designed to give practical support to theory and is followed by discussion. When the courses end, the the participants exhibit teaching aids which they have prepared with the help of specialists. On the closing day, certificates are awarded to the successful participants.

Follow-up is carried out through small groups of specialists who visit schools during the closing months of the financial year. Funds are scarce. Hence , teachers cannot be invited to the Centre. So, two or three specialists set up a mobile training centre and arrange to meet teachers in some teacher training college. (During this time the teacher training colleges are also closed.) Professors in these colleges act as resource persons. Courses for college teachers are usually held in December when college classes are suspended.

Besides conducting courses, the centre also does research. The Deputy Director and all subject specialists undertake or administer research projects in different fields in order to have better knowledge and skills. They also do extension work and attend seminars, workshops and conferences on non-formal education, literacy programmes, population education programme, and the like.

Facilities

The Centre was renamed the Bangladesh Education Extension and Research Institute in 1973. Among its facilities are:

1. A library containing wide and up-to-date collections of books and journals on education. The library grows every year through local purchase and importation of books and through gifts from benevolent agencies. Local purchases are made entirely out of government funds; the imports from abroad have been made through the University of Chicago, with funding from the Ford Foundation. The centre has, however, to borrow books from other institutions on some specific occasions for the benefit of the trainees.
2. The audio-visual centre, a government organization which is under the direct control of the Bangladesh Education Extension and Research Institute is located near the Education Centre.

Correspondence Cum-Contact Course – Project of India

Background

Because of the very large number of untrained teachers working in schools, it is not possible to provide training for them in the regular courses. The colleges do not have the capacity to admit them. Moreover, it is difficult for teachers to leave their jobs for a year and come for training. Therefore, provision has been made to train them through correspondence-cum-contact courses.

The four Regional Colleges of Education of the NCERT carry out this training, each for its own region. The course contact is broadly the same as that of the regular B.Ed. course of the college. On successful completion of the course the students receive a degree from the University to which the college is affiliated.

Course description

The course begins with a two-month contact programme in the summer vacation, during which regular classes are held. At the end of the summer vacation, student-teachers go back to their schools. In the following nine months lessons are sent to them by mail. The participants are expected to send in assignments, which are evaluated and mailed back to them.

Practice teaching is also arranged during this period. It is carried out under the guidance of a supervisor appointed by NCERT. The supervisor is usually the head of the institution in which the teacher is teaching, but may also be a lecturer in a training college. The student – teachers are required to report to a college of education for one week and teach under the guidance of the staff of the college.

Student-teachers who have completed their assignments and practice teaching are called for the second contact programme in the following summer vacation. About twenty-five percent of the content is covered by correspondence and seventy-five percent in the two summer contact programmes.

Evaluation

The pattern of evaluation is the same as that of the regular B.Ed. course of the college; it is partly external and partly internal. The internal evaluation in theory is based on the assignments and on the examinations held at the end of each contact programme. The University conducts the external examination.

The evaluation in practice teaching is based on lessons given during the course and two lessons observed by the external examiners.

Problems and constraints

One problem in running the course is getting the assignments from the student-teachers in time. They have difficulty doing the course in addition to their regular duties. There is also delay by the evaluators, who are likewise busy with their regular work.

The colleges are planning to revise their teacher training curriculum to bring it in line with the recommendations of the National Council for Teacher Education. When this is done the correspondence lessons will also have to be revised. Hopefully, the course will improve if the lessons are prepared in the form of self-instructional materials.

Another much needed improvement is providing more meaningful feed-back to the student teachers, that is, informing them what exactly are the strengths and weaknesses of the assignments they have sent in.

In-service training through involvement in experimental project – an innovative project of India*

Most of the findings of educational research have been observed to have little or no influence on school practices. If, however, a teacher conducts an experiment it can have an immediate impact on his work. Moreover, the teacher learns in the process; it increases his involvement in his work. However, the school budgets are such that there is no provision for additional expenditure for experimentation. Therefore NCERT has a scheme of giving grants to enable teachers to carry out experimental projects.

Teachers are invited to submit project proposals which are usually of the action research type. Grants are given for projects that are approved. Earlier, the projects were screened at the National Institute of Education. Later, in a move to decentralize the programme, the screening was entrusted to the Regional Colleges of Education. Now it is handled by the Field Advisers, who are in a better position to supervise the projects. Proposals requiring a grant of Rs 500 or less are screened by a committee consisting of the Field Adviser and representatives from the State. Projects requiring a grant of more than Rs 500 are referred to NCERT.

NCERT has provided training to the staff of the State Institutes of Education to enable them to help teachers in project planning and implementation. Some projects have been very valuable but not enough good projects have been proposed. Workshops are therefore being organized to discuss with teachers their ideas, and to help them to plan projects.

Multi-facet teachers' re-training programme of Indonesia

In Indonesia, the failure to produce good teachers for primary and secondary schools in the past is due to the several reasons, such as: (1) inadequate and irrelevant pre-service and in-service teacher education programme; (2) shortage of training materials; and (3) lack of co-ordination among agencies running the pre-service and in-service teacher education programmes, etc.

In order to improve this situation, in 1975, an integrated project of teacher education was planned and developed. This project, called multi-facet Teacher Training Project or P-3G (*Proyek Pengembangan Pendidikan Guru*) had the following objectives:

1. Adjustment of the teacher training curriculum to the teachers' expected role and tasks, based on the standardized curriculum of the schools where teachers are expected to work;

***Note** The editors are indebted for this idea to the late Dr. S.M. Corey, Professor of Education, Teachers College, Columbia University, who initiated the programme during his stay in India.

2. Development of teaching and learning materials;
3. Provision of supporting facilities; and
4. Re-training of teacher educators.

This teacher re-training programme has been given a greater emphasis in the total teacher training project of Indonesia.

Approaches to teachers' re-training programme

The main objectives of the teachers' re-training programme are to train the teachers and teacher educators in:

1. Understanding new curriculum of teacher education programme;
2. Adjusting and updating their mastery of training content and teaching materials;
3. Developing appropriate method of teaching with emphasis on student's active participation and learning.

This programme of teacher re-training has been implemented in three phases:

Phase I: Preparation of 40 core re-trainers first;

Phase II: Expanding the re-training group with training of additional 110 re-trainers; and

Phase III: Re-training of more teachers and teacher educators to cover the training of some 8,000 teachers and teacher educators.

This re-training programme has been implemented since January 1978. As a result, some changes appear to have taken place. Some of these changes include:

1. Changes in teaching – learning concept; 'the teacher – active teaching' has changed to 'student active learning'.
2. Changes in the training programmes: emphasis on 'development of science' has shifted to the programme of 'job-orientation'.
3. Teaching materials: from 'formal textbooks' to 'self-contained training packages' which include modules.
4. More emphasis on attitude change.

Problems and constraints

Implementing the above mentioned three phases, certain problems emerged. Some of the significant problems encountered were as follows:

1. Difficulties in actual co-ordination among those agencies responsible for various teacher training programmes. Although it was agreed to have an integrated co-ordination among those agencies, in reality, these were constraints due to each agency's concerns and interests especially because of bureaucracy in administrative mechanism and the centralized nature of administration.

2. Problems of communication. The re-training programmes are conducted in 18 training centres, in which the existing IKIP, FKg, FIP are used as central bases for all the centres. Each training centre has its own re-training territory. Most of those Centres have relatively large areas including remote places separated by sea and which cannot be reached by air. This creates problems in communication, leading to difficulties in gaining admission to the re-training programme and in arranging for travel of trainees. This also causes serious financial implications.
3. Reproduction and distribution of re-training materials. Due to the problem of communication, reproduction and distribution of the training material is another significant constraint. Production of materials at the central level resulted in significant delays in distribution, while local production produced low-quality printed materials.
4. Problem of presentation. For the re-training programme, master papers and other uniform self-contained materials were prepared by the re-trainers. Most of the materials which were composed and written by certain people, were presented by other people. Because of lack of adequate manual or scenario for using those materials, usually the presentors who are not the writers of the paper or other materials present them in a relatively different way, and sometimes they were not able to respond to the questions raised by the participants of the re-training programme.
5. Psychological barrier between re-trainers and participants. To ensure the high quality of re-trainers, especially for the group of 40, a tight procedure of selection was adopted. The result of this procedure was the selection of 40 people, who are relatively young but have good potential. In the implementation of Phases II and III there were significant psychological constraints between those young trainers and those participants who held more senior administrative posts.
6. Attitudinal constraints. Those participants with conventional and rather conservative ideas and attitudes in education tend to be a significant constraint in the programme implementation. Their attitudes are set and are very difficult to change. Unfortunately their attitudes are very easily transferred to the 'neutral' participants, because those with negative attitudes are mostly senior in position.

Points to be considered in further implementation

The following measures may be taken for effective implementation of the re-training programme.

1. Re-arrangment of participants' admission procedure. This re-arrangement was done to made possible flexibility in the territory of each training Centre. This re-arrangement will organize the shortest possible travel of the participants and the retrainers to reach their respective training centres.
2. Re-scheduling of respective centres for implementation of re-training. From the first experience it was found that not all the training centres need to be used for every training session. The reduction of centres used for

training session had two benefits:

a) To have more trainers in each training centre;

b) To maintain more senior re-trainers in every centre so that the team of re-trainers can be more firm in facing those senior participants who have negative attitudes against the programme. At the same time psychological constraints between young re-trainers and senior participants may be remedied;

3. Use of Learning Resource Centres. One of the Teacher Training project components is the establishment of Learning Resource Centres (LRC). In 1979, 10 IKIP's, 5 FKg's and 13 SPG's will have their own LRC's. The LRC will not only be used in the re-training programmes of teacher educators, but also for pre-service training of the student teachers and those other teacher educators who voluntarily need it. The LRC will be used i) to equip re-training programmes with better facilities for preparation, and implementation of re-training; ii) to provide student teachers with relevant and up-to-date facilities for their training programmes; iii) to provide teacher educators with sufficient facilities in preparing their lessons in the respective institutions; and iv) to provide teacher educators who voluntarily wish to improve their capability at teaching, with better facilities.

Mobile in-service training programme for teachers of agricultural science: a Malaysian project

Background

Prior to the mobile unit concept, in-service courses were being held for trained teachers of agricultural science by the Division of Technical and Vocational Education of the Ministry of Education with the assistance of the teachers college in Johor. These courses were meant to upgrade the teachers who had been trained earlier using the old Agricultural Science teacher training syllabus that had a heavier content of science than agriculture.

With the establishment of the Agricultural Science Teacher Training Project (Government of Malaysia – UNDP), facilities for training of agricultural science teachers at the college were vastly improved.

The following situations were prevailing at the time:

1. In-service training for agricultural science teachers was limited to groups of participants who need to complete stages of the course that spanned two years. This resulted in many teachers not being exposed to any in-service courses.
2. The types of in-service courses that were being organized were those that required participants to come to a centre during the holidays and stay there for periods of up to two weeks or more. Because of this, some teachers found it inconvenient to attend. Expenditure for travel and sub-

sistence of participants was also high.

3. In some instances, the curriculum of the training programmes did not take into consideration the actual needs of the participants but rather what the organizers felt the teachers required.

Status of the Mobile Unit

The Mobile In-service Unit was set up in 1974 as a pilot project. It utilized resources already available at the main project and began conducting the courses in 1974 for teachers of agricultural science in the state of Johor. Courses have been conducted until 1978 for these teachers. In 1979 this unit has conducted courses for teachers of a neighbouring state. The unit has also been involved in organizing an orientation course for school principals in the state of Sabah to begin a programme of teaching of agricultural science in their schools.

Description of the project

1. Objectives

a) The mobile in-service unit was set up as a pilot project to provide an alternative to the training approach that is being used, and to overcome some of the weaknesses experienced;

b) Specifically, it was conducted to establish direct contact with the teachers of agricultural science, to understand and assist them to solve their problems and to assess their requirements for training; and

c) The unit was also set up to indirectly boost the teaching of agricultural science especially with regard to the administration of the subject in the schools and the provision of adequate resources for the teachers.

2. Administration and organization

The mobile unit is set up in the Department of Agricultural science of the college. The head of department is in charge of the project. The staff and other resources of the department are utilized for the project. Funds for the project are obtained through an allocation provided by the Ministry of Education and managed by the college.

Steps taken to begin the project were as follows:

a) Preparation of a working paper for approval by the Central Curriculum Committee of the Ministry and for the approval of budget allocation;

b) Several planning and working sessions were held to decide on the details of the programmes and to prepare content materials for the courses. It was decided to visit each centre twice in 1974;

c) Discussions were held by the Project Director with the State Director of Education to obtain his approval to conduct the courses for his teachers and to enlist his support for the programmes;

d) A survey was made to determine the number and details of teachers teaching Agricultural Science in the state. This was done by sending a survey form to all schools offering the subject. From the returns it was decided to set up centres in five districts and a list of participants for each centre was prepared;

e) When all the materials for the course was ready a mock session involving all the staff of the Agricultural Science Department was carried out and criticisms and suggestions were made regarding each person's presentation. This served as an indirect pre-test for the materials, since it was not possible to conduct an actual one.

f) A school in each district affected was selected for the centre and the the headmaster and senior agricultural science teacher were contacted to solicit their co-operation;

g) A preliminary visit by one of the organizers was made to each centre school to arrange for the programme, borrowing of facilities and to arrange meals for the participants and lecturers. The curriculum for the first round of the course was based on observed needs of the participants obtained from actual observations of the staff and information received from students on teaching practice.

For the first round it was felt that the programme was to upgrade the administration, budgeting and acquisition of materials, equipment and other facilities because in many instances trainees and lecturers had reported problems in these areas. For subsequent courses, the curriculum was based on suggestions and requests made by the participants at the end of each course.

3. Staff for the project

All academic staff as well as non-academic staff of the department were mobilized to assist in the initial launching of the project. For the actual conduct of the courses 3 lecturers, 1 driver and 1 attendant were involved. They travelled by car and by landrover which was used to carry equipment and materials.

4. Materials and resources

Materials and equipment used for the course were those already available at the college for the basic training courses as well as new ones developed specifically for the course.

It was decided since the contact time was limited, materials that could be provided as handouts would be reproduced and distributed to participants. In this way time was saved for discussions as well as actual working on problems and tasks.

The type of tasks and assignments set were such that they represented what was actually required for the teacher to do for his school. By working on examples it was expected that he would transfer this knowledge to actually solving problems and planning programmes for his school. For example he had to do an exercise on budgeting and requisition of supplies for a model school. He also had to prepare a plan for the school farm. Such exercises were useful to give the teacher confidence to manage his own school farm.

5. Evaluation

At the end of each course, a course evaluation form was filled by each participant where he expressed his reactions to the programme. He was also encouraged to indicate areas he wanted to be included in future courses. He was also asked to suggest ways to improve the course. This approach was made so that the participants felt they were involved in planning the course and the informal approach used probably helped to encourage discussions by all involved.

6. Strengths of the approach

a) The mobile unit approach enables contact to be established and maintained with all teachers of Agricultural Science in the state;

b) As courses are held at district level, participants do not have to leave home for long periods (compare vacation courses);

c) There is a greater opportunity to discuss problems and issues in the local context;

d) Expenditure for travel and subsistence of persons is kept to a minimum;

e) The use of local schools as centres provides the unit with a working model. Participants may contribute ideas and suggestions to improve the school. It also provides the opportunity to show adaptation of apparatus and gear to the local situation;

f) The mobile team moves from district to district and gains expertise and experience and has direct contact with practising teachers for first-hand information and feedback which will assist the unit not only to plan future activities for in-service training but also to plan for the basic professional and supplementary training courses offered by the college. An exceptionally good rapport is built up with the teachers; and

g) The less formal approach, with less instruction and more demonstrations and clinics which sets tasks for participants to complete has proven to be quite effective. This has been employed in areas such as budgeting, acquisition of materials and other supplies, field-work planning and programming, and design and lay-out of farm buildings.

7. Application of the concept for other courses

It is felt that this mobile unit concept has definitely certain advantages and should be considered for in-service courses for other subjects. One exceptional feature is the opportunity it gives to the teacher training college to carry out follow-up studies on the products of its normal training programmes, because traditionally once students complete training at the college, contact with them is lost. This follow-up study would be useful for the college to assess strengths and weaknesses of its training programmes and make changes to the curriculum and training if necessary.

Distance teaching and remote-area programmes of Nepal

Remote and rural regions, where one-teacher and one-room schools exist, pose serious difficulties in the in-service education efforts in Nepal. Thinly populated villages are widely spread throughout the northern belt of the Himalayan region. About 90 per cent of the population in these areas live below subsistence level. The regions are linked only by air routes. Hence, primary school teachers cannot come to the Institute of Education (IOE) campuses for in-service training. As pointed out in Chapter One, about 60 per cent of the primary school teachers in Nepal are untrained and unqualified as well as educationally starved.

The IOE is presently using two approaches to increase the number of trained primary school teachers in these areas. These are (a) the distance teaching programme, and (b) the remote-area teacher upgrading programme. Both programmes aim to train untrained primary school teachers by offering the level "B" curriculum. They differ in that the remote area programme is designed to provide academic education as well as training, while the distance teaching programme aims only to train teachers. Those who come for the remote area programme have only five or six years of schooling while those who train in the distance teaching programme must have eight years of schooling.

Remote area teacher upgrading programme

This is a four-year programme designed specially to meet the needs of inaccessible Himalayan districts whose primary school teachers can be categorized as literates but have insufficient general education for primary school teaching. The programme offers both academic and professional education simultaneously. At the end of the training, the participants are awarded the primary school teaching certificate, and at the same time they qualify to take the School Leaving Certificate (S.L.C.) Examination. Thus their educational background is considerably raised and they become professionally qualfied.

This programme is organized by the Extension Section of the I.O.E. and is supervised directly by the Dean's Office. At present there is only one centre. It is located in Jumla and is servicing five Himalayan districts of the Far Western Region of Karnali Zone. Every year 40 in-service primary teachers are admitted to the programme. The trainers are B.Ed. degree holders who are permanent staff of the I.O.E. The method of training does not differ much from that in a regular I.O.E. campus.

This is one of Nepal's costly programmes. UNICEF has aided the project and has provided the necessary materials, both instructional and non-instructional.

The centre at Jumla is unique. The environment, school situations, socio-economic conditions and languages of the communities from which the teacher-trainees come are so different from those of other places that in-service teachers going to other regular I.O.E. campuses for training cannot profit much from the training as they do at Jumla. In this centre the trainees can make use of local examples and thus develop an insight into problems related to teaching in their respective districts. Moreover, because the programme takes in only 40 trainees per year, it can give more attention to individual trainees.

Distance teaching programme

This is an on-the-job training programme which offers the same level "B" professional curriculum. The minimum qualification for admission is eight years of schooling; hence, the general education component is not given to the trainees. The programme frees the teacher from time-bound and place-specific patterns of training.

The participants are rural primary school teachers of remote districts. On a previously fixed date, untrained primary school teachers of a district gather at the District Education Office where they take an entrance test. Successful candidates are then enrolled for the programme. Orientation activities are held for about a week, after which self-learning materials are distributed to the enrolees.

The programme has no fixed venue for training. The enrolled trainees teach in their respective schools as usual and study the self-learning materials in their free time. Because of this, the programme does not require a regular teaching staff. A staff member from the Dean's Office co-ordinates the programme. Generally two or three teacher educators of regular I.O.E. campuses are sent to organize the contact courses and the intensive training with the help of the trained local secondary school teachers. An intensive two-month training is organized in each district centre during long vacation periods. During this period the trainees are helped with their problems and difficulties. The student teachers are assessed and graded through written examinations.

Suggestions for improvement

1. The programmes will be more effective if modular instruction materials are used. The instructions should be written in simple language so that they can be comprehended by under-matriculate teachers.
2. Semi-permanent contact centres should be opened for the distance teaching programme. A pool of visiting supervisors should be developed to supervise and give immediate feedback to the teachers.
3. Only experienced staff, preferably M.Ed. degree holders, should be deputized as teacher educators to the remote area teacher upgrading programme.
4. The remote area programme should be organized in two phases: Phase I (the first two years) for general education to be held in local secondary schools , Phase II (the latter two years), for professional education plus education in specialized academic areas at the teacher training Centre.

Development programme for school district supervisors in the Philippines

Problem and situation

The greater bulk of the district supervisors in the country are deployed in the rural areas. They play a vital role not only in effecting better instruction in the schools within their districts but also in the successful implementation of other school and community development programmes. Their position in the school administrative ladder is highly strategic. Administratively, the district supervisors are next to schools division superintendents, the head of all the primary and secondary schools in the province. Very often, the district supervisors are the direct implementers of school policies and some community development programmes of the government. They work with the people through whom they are able to achieve the objectives of the Ministry and the government in general. It is for this reason that they must possess managerial-leadership abilities and interpersonal skills in order to be effective.

Approach

Prior to the launching of the programme, the National Research and Development Centre for Teacher Education (NRDCTE) conducted a national survey of the training needs of the district supervisors and school administrators from both public and private schools. The content of the programme was partly based on the findings of that survey.

Participants in the programme are selected from among the incumbent district supervisors from the different parts of the country. The selection is undertaken by the office of the Assistant Minister for Personnel Management and Staff Development. Those who are selected for the course report to the Baguio Vacation Normal School (BVNS), Teacher Camp, Baguio City for a five-week intensive live-in seminar-workshop.

Description of the programme

The programme is under the overall direction of the Civil Service Commission and the Ministry of Education and Culture through the BVNS, NRDCTE and the Office of the Assistant Minister for Personnel Management and Staff Development under the auspices of the Civil Service Academy.

After the training programme, the schools district supervisors should be able to:

1. Manage the organization they head in the most effective way;
2. Implement educational programmes within their districts in the most innovative and facilitative manner; and
3. Work within the barangay (village) or community as extension and change agents, thus expediting the transfer and implementation of technology and information, including the introduction and acceptance of non-formal education programmes.

a. **Programme content**. The first two days of the course are devoted for orientation, pre-tests and unfreezing activities. During the orientation period, the participants are made aware of the content of the programme, its modalities, requirements and post-training expectations.

The pre-tests include knowledge, personality and attitude tests. The unfreezing activities which are intended to "break the ice" are mostly in the form of group games. The rest of the training is devoted to three areas, namely (1) personal awareness, (2) organizational leadership, and (3) community leadership.

b. **Motivation.** The principal motivating factor is the programme itself. This is the first programme of this kind for district supervisors. Those who successfully complete the course are given preferential consideration in promotion. To establish a system of priority, the participants are ranked on the basis of their performance during the entire programme, taking into account the grades obtained in the periodic tests, reports submitted, class participation, interaction with other participants, and human relations. The participants are given a round-trip ticket from their station to Baguio with free board and lodging, and daily allowances. The venue itself is a motivating factor especially to those who have not yet been to Baguio City.

c. **Methodologies.** Lectures, open forums, buzz sessions, and panel discussions are extensively used in the classroom sessions. Case studies and workshops are utilized in the formulation of teacher development plans.

Within the five-week programme, the participants are required to undergo three days' 'Community Immersion' activities. The participants are brought to a nearby community by groups. Each group is assigned to write a case study of the community (barangay). The participants are also asked to observe and evaluate existing community projects and how the school helps in solving the community problems.

Activities focusing on inter-personal skills are conducted through the course to enhance personal and other awareness skills for greater work effectivity. Films and slides depicting national life, management skills and community projects are also shown to give more meaning to the lectures. Towards the end of the course, the participants formulate individual teacher-development plans which they will implement in their respective districts. These plans are evaluated six months after the training by a monitoring team from the Ministry.

d. **Course evaluation.** The course is periodically evaluated after every block or module. In most cases, a module synthesis is made upon the completion of every module. Formative evaluation is done throughout. A course synthesis and post-tests are done at the end of the course.

e. **Status.** Three training programmes for the schools district supervisors had been completed. There were 48, 58, and 70 district supervisors trained in the first three training programmes, respectively. The management plans to conduct at least four training programmes in a year until 30 percent of the district supervisors in the country shall have been trained.

Problems and constraints

1. The health requirements of the programme seem not to be strictly observed by some officials endorsing the applications of the disctict supervisors. In the three programmes conducted, there were dropouts due to poor health. Considering the financial investment for each participant, these dropouts mean wastage of both money and effort.

2. Difficulty of getting good resource speakers from Metro Manila to come during the rainy season. Most of the invited resource speakers in the third course failed to come due to bad weather. Because of this, some topics were not taken up.

Lessons learned

The following lessons can be drawn from the experiences of the Centre on the Development Programme for the Schools District Supervisiors:

1. The participation of the target clientele as early as the planning stage gives the planner insights on real needs as well as on possible problems and constraints to be met. Participation in the planning increases their sense of belonging, and their interest and enthusiasm to participate in the programme.
2. Top-to-bottom planning can be effective if it is research-based. On the basis of the research, a clear definition of the focus, content, methodologies and evaluation system of the programme can be evolved.
3. Funding to support the programme as well as the availability of able, efficient and effective resource persons must be seriously considered.
4. Programme incentives should be clearly explained. These could be in the form of stipends, free tuition and/or matriculation fees, transportation allowances, or certificates of attendance which can be credited toward promotion.
5. In-service training programmes must establish linkages with other agencies in order to effect successful implementation.
6. The orientation phase of any in-service training programme should not be taken for granted. Proper orientation gives the participants a clear grasp of the emphasis, content and methodologies used in the programme. Participants should be informed early of what is expected of them during and after the training.
7. Pre-tests and post-tests that serve as indicators on the effectiveness of the programme, should not be confined to knowledge of content. They should also include development of skills and attitudes.
8. Variety in teaching strategies will prevent boredom on the part of the participants. Stereotyped lectures are monotonous hence, do not affect optional learning.
9. Practicum should always be a built-in strategy in any in-service programme. The immediate application of the knowledge and skills gained from lectures, discussions, demonstrations and the like will concretize the learnings of the participants.
10. In-service training programmes related to community development should include practicum or actual participation in community development oriented projects.

11. Live-in arrangements ensure participant involvement in the activities and increase concentration on the tasks at hand.
12. The action programmes formulated by participants should be followed up after the training programme. The monitoring system adopted in the Development Programme for Schools district supervisors is a very expensive venture. A decentralized system should be worked out instead. Officials in the regions or those in the divisions should be involved in monitoring the effectiveness of the district supervisors.

In-service Training of Teacher Educators; an Innovative Approach of the College of Education, the University of the Philippines

Introduction and background

Pre-service education in the Philippines is undertaken by state and private colleges and universities which offer the four-year programmes leading to either the B.S. in Elementary Education or the B.S. in Education, which are intended for elementary or high school teaching, respectively. Until about ten years ago, there was an over-supply of teachers, hence, teacher recruitment had a wide base. In the last few years, however, there has been a steady decrease in the enrolment in teacher training institutions. On the other hand, teachers already in the service have to be continually trained to keep them abreast of educational innovations and development. Those charged with the responsibility of training teachers in the service likewise have to be professionally equipped for leadership as master teachers of teacher educators.

A recent Presidential Letter of Instruction (LOI 352) created the position of master teacher in recognition of the need to keep the better teachers in the service, not as administrators, but exemplars of teaching after they are upgraded professionally.

Objectives

The objectives of the College programmes specific to educational personnel already in the service are:

1. To produce education leaders such as school administrators, supervisors, educational managers and researchers; and
2. To train educational practitioners for new roles demanded by changes in the curriculum and national priorities.

Degree programmes

In-service education of teacher educators is done largely through graduate degree programmes either at the masteral or doctoral level. The College offers four masteral programmes at the master level. These are the Master of Arts (M.A.), Master of Education (M.Ed.), Master of Arts in Teaching (M.A.T.) and Master in Population Studies (M.P.S.). Each of these entail a minimum of 16 months of full-time study and require research papers of varying levels of sophistication. The full academic load is 12 units per semester. Working students are allowed at most 6 units per semester, hence, take at least twice as long to complete the programme.

The College has two doctoral degree programmes, namely, the Doctor of Education (Ed.D.) with specializations in Counselling and Educational Administration, and the Doctor of Philosophy (Ph.D.) with specializations in Educational Foundations and Language Teaching. It is in the doctoral programmes that the College has an edge over other teacher training institutions in the country, because of its high proportion of faculties with doctoral degrees.

Clientele

The clients of the degree programmes are usually middle- and upper-level educational personnel like school administrators, supervisors, instructors, deans and presidents of colleges and universities, specially teacher training institutions. This first semester of the school year 1979-1980, for example, the graduate enrolment of the College consists of classroom teachers (53.2%) being groomed for supervisory and/or administrative positions; college instructors and professors (20.2%); heads and supervisors of educational institutions (11%); and other school personnel, e.g. guidance counsellors and researchers (15.6%). All 13 administrative regions of the country are represented, but personnel from the National Capital Region, in which the majority of tertiary education institutions are located, comprise 45.3 per cent of the total graduate enrolment.[1]

With the memorandum of agreement between the College and the Ministry of Education and Culture, key educational personnel from all the regions enjoy scholarships to the graduate programmes every year. The National Science Development Board also subsidizes 30 to 40 scholars per year in the MAT programmes in mathematics and science. After their graduate training, these scholars form the teaching staff of the Regional Science Teaching Centres which in turn provide in-service training to science and mathematics teachers in the respective regions.

Linkages

For maximum utilization of its programmes, the College has drawn up memoranda of agreement with the Ministry of Education and Culture, the National Science Development Board, the Philippine Association of State Universities and Colleges, and other agencies – private or state-owned – with Unesco and WHO. Students from Afghanistan, Thailand, Nepal, Papua New Guinea, Malaysia and other countries have graduated from the programmes.

To effect co-ordination in the pre-service and in-service education programmes of teacher training in the country, the College sponsored the First National Advanced Level Workshop for Teacher Educators, held in UP, Diliman, Quezon City on 5-15 July 1977. The aims of the workshop were: (1) to promote the process of self-study, self-analysis and self-renewal of teacher education institutions in the light of current problems and issues in teacher education; (2) to develop continuing education and self-renewal materials for teacher educators; and (3) to study and analyse the guidelines, and draft a handbook of the advanced-level workshops for teacher educators.[1] The workshop was attended by 38 participants consisting of Vice-Presidents, Deans and Senior Professors of teacher education institutions; resource persons from the College of Education and the Ministry of Education and Culture. It set up a network of 20 teacher training colleges and universities from all over the country.

---

[1] "The U.P. College of Education: Challenge and Response" A Position Paper (Typewritten), August 1979.

Besides providing leadership in the training of teacher educators, the College now draws upon the 20 affiliated institutions for help in disseminating information on the College programmes for instruction, research and extension. In turn, the College provides help and shares its expertise with the institutions, particularly in regard to teacher education and research. The institutional network has been looking into the problem of dwindling enrolment in pre-service education courses and considering strategies to drum up interest in teaching as a career. It is also co-ordinating the pre-service programmes in educational innovations and development in order to minimize the need for retraining of future graduates of the programmes in the service.

A follow-up of this workshop is presently being planned. It is expected that more institutions would join.

Evaluation and follow-up

Graduates of the formal degree programmes are absorbed by educational institutions and other agencies with training functions. Those who come on scholarship grants return to their stations. Because the students are not entirely cut off from their institutions during the programme, they are able to extend the knowledge and expertise they acquire even before they formally graduate. This is specially true for those who come on part-time basis.

Problems and constraints

1. There has been a proliferation of programmes like those offered by the College of Education. Standards vary, particularly in regard to the research requirements for the graduate degree. Because of the stringent requirements in the College, many teacher educators opt to get their graduate degrees under less demanding conditions. Since, in the accreditation of graduate degrees, no distinctions are drawn in regard to where one obtains a degree, many go to private universities or other state universities.
2. There is no co-ordination among institutions offering similar graduate programmes in regard to specializations, residence and research requirements.

---

[1] First National Advanced-Level Workshop Export; U.P. College of Education, 1977 (Mimeo), pp. 1-2.

Institutions should offer only such programmes for which they have full-time expertise. As it is, many institutions depend only on part-time lecturers to teach graduate courses.

3. A sharing of College faculty expertise with other institutions offering programmes similar to those in the College has not been encouraged because the faculty concerned has heavy teaching and research loads.
4. There has been very little attempt at controlling the quality of the output of graduate programmes, particularly those at the doctoral level, of some private universities whose clients are also teacher educators.

The Upper Primary Project (UPP) of Sri Lanka: an integrated multi-level training approach for upgrading teaching in grades 3-5

Background

At the inception of the primary in-service training programme, a noted feature had been its centrally controlled nature. This was necessary at the beginning because the very magnitude of the Primary Project has called for a certain amount of counselling and guidance from the centre. But with successive years the Curriculum Development Centre found it difficult to organize in-service training programmes at the district level – for lack of necessary personnel, time etc. Moreover, the personnel at the district level had to take this responsibility of training their own teachers. Further, it should be very clearly noted here that the planners' intention had always been to give more and more responsibility to trained personnel and practising teachers of the districts.

An unforeseen problematic situation arose in 1978. The new programme that was started in 1974 with grade I was to complete its first cycle in 1978 with grade 5. But by this time there were certain criticisms levelled against the programme – mainly at its implementation at the district level. These may be noted as follows:

1. In later years of the Primary Projects, especially in relation to the upper primary grades (grades III, IV, V) the expected standards had not been achieved. In many instances teachers followed the same pattern of classroom activities which they have done in the lower primary, ignoring thereby the maturity of the upper primary child.
2. The fear on the part of the parents that their children may not perform well at the grade V scholarship exam in 1978, for the first batch of students after the new curricular changes was to sit the scholarship examination in 1978.
3. The disparities that appeared among districts – also within districts themselves – in the implementation of the primary programme.

In addition, the new government that was installed in 1977 took a major policy decision i.e. age of admission to schools has been lowered to 5 years. This resulted in 1978 in the admission of thousands of children to the kindergarten. It was an additional challenge to the CDC to train immediately teachers capable of managing kindergarten classes.

Thus in 1978, the Primary Committtee of the Curriculum Development Centre (CDC) was faced with two problems – i.e. that of training kindergarten teachers and finding solutions to the upper primary problems. This resulted in the unique situation in Sri Lanka of handing over almost complete responsibility of designing, organizing and implementing the upper primary project to the personnel at the district level.

Objectives

The major aims of the Upper Primary Project are:

1. to bring the educational level of the upper primary classes (grades III, IV, V) to the expected standards.
2. to bring some uniformity in the implementation of the primary project – uniformity in standards of the content and methodology.
3. to make the District Primary Education Committee (DPEC) more responsible and more independent in planning and implementation of the project.
4. to decentralize the organization of the primary programme, i.e. to bring the primary in-service programme to the circuit itself.

Keeping the above objectives in mind, the Primary Committee of the CDC has invited trained personnel of the DPEC's for a dialogue to find out a course of remedial action. The decision finally made was to implement the UPP at 3 levels: 1) training personnel of the DPEC; 2) training to instructors at the Regional Level and 3) training of upper primary teachers at the circuit level.

1. **Level I – Training personnel of the DPEC**

Certain steps in connection with level I were followed:

a) Division of the island into seven educational districts for the purpose of the Upper Primary Project (UPP). Each of these districts covers roughly 25 to 30 circuits.

b) Nomination of seven or eight personnel from each of the above districts who were to be later given the responsibility of training the "instructors". These seven or eight included persons who were involved in the primary in-service programme for more than seven years. They were a dedicated group, who themselves had earlier undergone a series of training in primary work. Such selected personnel had the necessary experience in organizing, conducting, supervising and evaluating the primary programme from its very inception. Further, those who were selected should cover more than one subject area of the primary programme competently. There are seven disciplines under which the Primary Project was organized namely, 1) Philosophy of Primary Education; 2) Language; 3) Mathematics; 4) Environmental Activities; 5) Creative and Constructional Activities; (6) Aesthetic Activities; and 7) Evaluation.

c) Organization at the CDC of the residential in-service seminar for these personnel: At this seminar, one of the first items done was to carve out the subject areas and name them "faculties". For example, the Faculty of Language, Faculty of Mathematics etc. Each Faculty comprised seven members who are conversant in that respective field of activity. These personnel were further named the 'Faculty Heads'. After a briefing of the work to be done, these faculty heads covering the seven subject areas sat down to deliberate and prepare the curricular material and methods of presenting them later at the regional seminars. They were also entrusted with the work of compilation of relevant literature in their respective subject areas. As a result a Handbook was prepared. This was of immense use and served as a guide at the seminars to follow. At faculty deliberations, subject matter was discussed, arranged and, where necessary, changes made. They also prepared the time-table that could be used at the regional instructor training programmes, and also another time-table to be used at the circuit level.

d) Built-in programme: For the first time in the primary in-service programme a novel feature had been introduced. This was really a "built-in" programme. Here was an opportunity for the faculty members themselves to get the necessary experience then and there in conducting their regional instructor training programmes. For this purpose about 20 teachers who are teaching in the upper primary classes from close-by schools were brought into the Centre. They were to undergo the training conducted by the faculty members. The time-table prepared earlier was followed.

e) Follow-up work and feed-back: After every session of the seminar, all the faculty members had opportunities to get together and discuss the topic covered by one of their own members. There would be suggestions regarding presentation, the subject matter itself, and even the response shown by the teachers. Here was a fine example of where the curricular material developers themselves had to implement their work. A lot of cross talk had resulted in valuable feed-back.

2. Level II – Training of instructors at the regional level

The work involved in organization at the regional/district level was more cumbersome. Each educational district had roughly about five to six thousand teachers of the upper primary grades who had to be trained. An Officer had to be nominated to work as the co-ordinator whose main function was to find a strategy of training the five to six thousand upper primary teachers that come under each district. He had to find instructors from every circuit and train them. Following the example of the C.D.C. a residential in-service training programme was organized and three representatives from each circuit nominated by the Circuit Education Officers (CEOs) were called for this training programme. These three teachers from each circuit had to have certain qualifications. They had to be dedicated teachers who should in turn be able to manage in-service programme in their own circuit. The task was not easy. They needed to be able to put across their views to the other teachers.

Thus a training programme was organized by the coordinating officer for these "teacher instructors" as they were called. The programme, named the "seminar for teacher instructors" was conducted by the personnel who had represented the education district at the C.D.C. In addition to these, the co-ordinating officer could get, if necessary, the support of the faculty members of the adjoining districts. Certain steps were followed to bring about maximum results.

A simple "exhibition" was arranged at the outset displaying posters, pamphlets, and all the primary education literature. The idea was to create an atmosphere of "drawing in" the attention of the participants. At this exhibition were displayed also model lesson plans, the flow charts under certain themes and practical work (exercise books) of the children in upper primary classes.

The seminar proper commenced subsequently. As in the seminar at the C.D.C., here, too, the "built-in" programme was adopted. About 25 teachers from adjoining schools were invited to attend. The participants to the seminar were divided into seven groups to cover the seven subject areas. In between the normal lectures and discussions the "practice training session" plan was carried out to give the teacher instructors the necessary practical experience.

3. **Level III – Training of upper primary teachers at the circuit level**

The three "teacher instructors" who underwent training earlier have to bear the full responsibility of training the upper primary teachers in their circuits. Here arrangements have been made to get the fullest co-operation of all the Heads of schools. The Circuit Education Officer, of course will have to give the necessary leadership in implementing this venture. The programme has just only begun at the circuit level and it is intended to finish all upper primary teacher training by the end of 1979.

Some observations

It is still too early to assess the upper primary project. But certain suggestions for improvement of the project can be made as follows:

1. Involvement in the UPP of all the Circuit Education officers (CEOs) who will actually be responsible for the successful implementation of the Level III of the programme at the circuit level. The CEOs could be invited as observers to the Level II seminar.
2. Conducting a one-day seminar for Heads of schools at the circuit level – The programme rests on the enthusiasm and leadership shown by the headmasters.
3. To make arrangements to visit a classroom during the actual working of the seminar. In fact this had been suggested in the handbook that was prepared earlier.
4. Establishment of an In-service Training cum Resource Centre at the district level, where research could be carried out. The example tried out in the Philippines could be considered in this respect.

Multi-level and multi-phased orientation and training of teachers and other educational personnel: In-service training programme connected with curriculum change in Thailand

In the past in-service education was under the jurisdiction of the department concerned. Inter-department collaboration is made but it is meant to serve its own purposes: generally in-service education is regarded as a means to improve educational standard especially in terms of the improvement of teaching-learning quality. There are some programmes organized to promote and/or improve the standard of supervision, evaluation and research. However, at present a comprehensive nationwide in-service education has been collectively undertaken since the issuance of the 1977 National Education Plan. Since this Plan prescribes the change from 7-3-2 to 6-3-3 system, a great deal of work needs to be carefully planned, implemented, evaluated and improved. Thus the Ministry of Education had set up a Curriculum Implementation Steering Committee to be in charge of this matter. This committee comprises two sub-committees – one on School System Implementation and the other on Curriculum Implementation. The task carried out by the first sub-committee is mainly on administration. The second requires a lot of publication, dissemination of the curriculum materials and training of personnel concerned. This change directly affects the increase of number of teachers, school buildings; a large quantity of equipment, supplies, and curriculum materials; and more complicated evaluation system. Since resources are very limited and the demand so large, in addition to the training of teacher and educational personnel, the Ministry of Education decided that a collective task is vital and has to be discharged effectively.

In order to fulfill the objective of training educational personnel and then being able to implement the curriculum effectively, the Ministry of Education had entrusted the Department of Educational Techniques with two tasks. First is conducting seminars to assist the administrators, in order to familiarize themselves with the new curricula. Second is organizing training programmes to train the first level trainers who will multiply the larger number of trainers at the provincial, district and school level. In addition, training packages are produced and distributed to all levels of trainers to run in-service training programmes for teachers. As for the organization of the in-service training to enable teachers to conduct effective teaching–learning programmes, this is the responsibility of the department which administers the school. With regard to priorities in educational programme since 1977, the Ministry of Education has put greater emphasis on curriculum implementation. This can be exemplified by judging the increase of allocations for this task.

Due to financial constraints, the Ministry of Education encourages in-service training programmes which are practical, feasible and economical. That is to say, what we expect teachers/educational personnel to do is that the training activities should be structured likewise. Training packages are produced adequately and delivered in time for the set schedule of training.

Follow-up and evaluation teams are set up to assess failure or success of the training programme. A survey of opinions of teachers who undergo training is conducted to investigate the result of training. Supervisors and education officers are given instruction to follow-up and evaluate training outcomes. These two groups are requested to send regular reports of follow-up and evaluation activities to their respective departments. Feedback on the obtained data and information is sent to the responsible agency for improving the work.

Development of curriculum materials as an approach to teacher training

Financially Thailand cannot run intensive training programmes for all teachers and supervisors, as administrators do not have time and facilities to visit and advise teachers in every school. This factor necessitates that the Ministry of Education look for another alternative to solve this problem. To this effect the Curriculum Development Centre is assigned the task of producing curriculum materials to supplement teacher training.

The objective of this programme is to help teacher trainers to understand the substance of training and to provide the trainee with a set of materials he can refer to and select for use in conducting effective teaching-learning programmes. This material is made as a "training package" of curriculum materials. It consists of a syllabus, teacher's manual, curriculum guide, textbook, readers, workbook, and record/report form.

Since this task requires a large number of those who have experiences and knowledge, a team of writers is appointed by the Department of Educational Techniques. The team consists of a curriculum specialist, a subject specialist, teachers, supervisors and school principals. A curriculum guide is designed and developed to assist teachers in understanding aims and concepts in the syllabus. In addition, there are suggested teaching-learning activities and instructional aids. It is regarded by educators and devoted teachers as a reference which teachers can use comprehensively.

The teacher's manual is designed and developed to help teachers understand the syllabus; and if they are capable enough, they would be able to prepare lesson plan, instructional aids and teaching-learning activities in accordance with the aims and objectives of the new syllabus.

As regards textbooks, record/reports etc. these are prepared by a group of specialists and experts in relevant fields. The materials are tried out in the school. After obtaining data and information, revision of the materials is made. This task usually takes about 4 to 6 months except for the textbook, which needs longer preparation. The set of materials is produced and distributed to all schools.

In addition, simplified curriculum materials are produced with a view to assist administrators who do not have much time to study carefully the unabridged curriculum materials. This material is distributed also to all teachers so that they can consult the book in a short time.

Local educational personnel namely supervisors and education officers are encouraged to produce curriculum materials to suit local needs and situations. The local materials are developed similar to the materials produced by the Curriculum Development Centre, but detail and emphasis are given to enriching the knowledge and practices relevant to each local area, especially on certain things unique to each region. Local art, crafts, folk tales, way of life, music, geographical condition, history and vocations are the topics which local educators prepare for teachers and students. This is in line with the policy of the Ministry of Education to promote diversity with unity of the details of curriculum materials which are modifed to suit local needs and situations.

Since the package comprises a number of books and documents, it is voluminous and the cost of production is relatively high. In addition, the cost of lending it to the school adds up further financial burden. The Ministry of Education has to send this package to the school first, but supervisors, administrators, lecturers and students at the teachers college and university also need it. Since the budget is limited, inadequacies are inevitable.

The Curriculum Development Centre constantly receives questions from teachers inquiring about terminology which needs additional explanation. They also need to learn how to prepare instructional aids as mentioned in the curriculum guide and teacher's manual. Therefore, a basic training programme is organized to enable supervisors and key teachers to get this knowledge. It is hoped that this training would be expanded, and the teachers manual on how to prepare instructional aids plus exemplars kit of instructional aid will be helpful for teachers.

Chapter Three

EXEMPLAR MATERIALS USED OR DEVELOPED FOR IN-SERVICE TRAINING OF TEACHERS AND OTHER EDUCATIONAL PERSONNEL

This section of the report is concerned with materials used or developed for the different in-service education programmes in the countries participating in the Study Group Meeting. In the presentation of the exemplar materials, the participants identified specific programmes that were undertaken in their countries. The content of use of the materials and how they are developed were briefly discussed.

The following summarizes the presentations of the participants of the exemplar materials developed or used in their country.

Bangladesh

In-service education refresher course programmes in the country are mainly the concern of the Educational Extension and Research Institute. The Institute gives training to all types of educational personnel. Courses organized by the Institute are mainly based on contact courses of varying durations. Basically, the strategies adopted in the different courses are similar to those in formal classroom instruction. Hence, the exemplar materials developed or used in the different in-service training programmes conducted are similar to those found in regular classrooms. The exemplar materials used and developed in the country are:

1. Syllabuses/courses of studies – These materials contain the structured contents of the different courses run by the Institute. The materials are given to the participants to orient them on the nature and procedure of the courses they are attending.
2. Hand-outs – There are mimeographed copies of the lectures, bulletins of information, excerpts of research studies, discussion papers and the like.
3. Modules – These are extensively used in population education, commerce and agriculture courses. The modules are self-pacing and self-contained. The content of population education modules integrate science and mathematics concepts.
4. Guidebooks – These are primarily utilized to orient participants on the activities to be undertaken during the course.
5. Evaluation text materials – These come in different sets and are administered to the participants before they are admitted to the course.
6. Maps and charts – These are used to give further meaning to concepts taken up in class.

7. Library books – These refer to the basic textbooks and supplementary books found in the library.
8. Radio-cassette tapes – Primarily used in communication art subjects specially in phonetics. These are also used to record lectures given in the class.
9. Exhibits – These are finished projects done by the participants and are displayed for teaching-learning purposes.
10. Laboratory equipment and apparatus – These are the commercial and improvised equipment and apparatuses found in science, mathematics and speech laboratories.

India

The National Council of Educational Research and Training (NCERT) has three basic types of in-service education programmes. These are: (a) long term courses, (b) short-term courses, and (c) indirect in-service education programmes. Although most of the in-service programmes conducted by the council are in the form of contact courses, some have built in correspondence aspects. The main consideration in the development of materials to be used in the in-service education courses is that of reaching a large number of teachers over a vast area economically. The materials used in the country are as follows:

1. Guides – NCERT has developed a variety of teachers' guides for teaching practices. Some of them are the following: (a) Guides for the preparation and use of simple teaching aids; (b) Teachers' guides as supplements to textbooks; (c) guides for teachers and teacher educators on selected topics; and (d) guides to supplement the use of other aids such as radio and television.
2. Radio and Television programmes have been used for the in-service education of primary school teachers. The television programmes have been much appreciated.
3. Modules – The use of modules has been introduced.
4. Involvement of teachers and teacher educators in preparing instructional material has been a part of several programmes.
5. Very limited use of tape-recorders has been made. This has been chiefly in micro-teaching and in guidance and counselling.

Indonesia

In-service education in the country is primarily concerned with four major areas, namely: (a) programme thrusts and policies of the educational system as a result of curricular reforms and innovation, (b) improvement of teachers' competency skills on the various aspects of the teaching-learning process, (c) guidance and counselling, and (d) school administration and management. Strategies adopted to realize the goals and objectives in these areas of concern require the development and use of varied exemplar materials, some of which are the following:

1. Modules – These are formally introduced in the contact courses. Since the approach utilized in most of the in-service programmes in the country is the contact course, there are different modules that are developed and used. Not all the modules used are self-contained and self-pacing but most are multi-level. In a set of modules, there are materials for the development of primary concepts, for enrichment and for remedial action.
2. Discussion papers – This type of material is usually given before or on the first session of a seminar or workshop. Reading sessions are scheduled on the first day, followed by 30 to 45 minutes of lecture. The rest of the sessions for the day are utilized for open discussions. Discussion papers are usually supplemented by other handouts.
3. Teacher's handbooks – These are used for giving guidelines and directives to the teachers on using student textbooks. These handbooks are prepared by a group of specialists in respective subject matter and distributed to the teachers. Teachers' feedback on the material is required as basis for revision.
4. Information papers are usually used in correspondence courses as well as in long term formal contact courses. In correspondence courses, the materials are sent to the participants by mail. The participants are requested to give feedback concerning the materials to serve as guidelines in the revision of the materials. These materials are not meant to assess the participants' achievement. In long-term contact courses, the papers are used as the main materials, supplemented with other reference materials and lectures.
5. Simple textbooks – Some of the in-service education programmes have textbooks in the form of reading manuals.
6. Other materials – The lecture-discussions are usually supplemented as well as complemented by various kinds of teaching aids such as slides, transparencies, film shows, plain charts and posters, cassettes, tape recordings, models and miniatures.

Malaysia

In-service courses for teachers and other educational personnel are based primarily on contact courses. Projectable and non-projectable exemplar materials like slides, films, transparencies, cassette tapes and worksheets are used. Special mention of certain materials used may be useful.

1. Syllabus/course of studies – the syllabus of Agricultural Science for Secondary schools is in the form of modules and lesson units with special attention on objectives, content and suggested activities. This was in fact a teachers' guide prepared with the idea of maintaining minimum standards.
2. Hand-outs – These are very widely used. They include notes, questionnaires, worksheets and diagrams. The use of handouts was convenient

because of ease of production, low cost, reproducibility and ease of revision.

Nepal

The exemplar materials used in in-service teacher training programmes are inadequate and traiditional. They have failed to bring about desired behaviour changes in teachers because the materials were mainly informative rather than creative and innovative. Another drawback has been the unavailability of relevant reference material. Moreover, even the materials that were available, i.e. books, were written in a foreign language and could not be effectively made use of. Therefore, at the moment, the country is faced with the problem of producing exemplar materials that are innovative and geared for feedback and reinforcement. Certain attempts have been made in the preparation of exemplar materials at the national as well as regional levels. Some of the materials prepared may be summarized below:

Materials prepared in connection with the distance teaching programme

These are mainly for the use of the teachers in rural backward areas. Under this programme, exemplar materials were prepared on the teaching of four subject areas; namely language, social studies, mathematics and arts and crafts.

With curricular revision, improvements in exemplar materials are also envisaged. Presently, arrangements have been made and necessary action taken in the preparation of exemplar materials in the following directions:

1. Printed materials, such as books, especially for use in on-the-spot teacher training programmes in remote areas.
2. Self-learning modules – to be aired over the radio (in the future). A plan to train 2,500 primary teachers annually under this project is being undertaken by the Centre for Educational Technology and Mass Media.
3. Projectable materials – such as transparencies, cassettes and tapes.
4. Hand-outs – generally prepared and used by individual teachers.

Individual attempts to produce modular materials on educational evaluation, measurement and guidance have also been undertaken.

Philippines

Depending on the nature of the in-service teacher-training programme, a variety of exemplar materials has been used.

1. Seminars at district level – As large numbers are involved, mimeographed sheets are commonly used.
2. Seminars held in urban areas – Printed handouts are supplemented with films and transparencies.
3. Formal courses – Normal lectures are supplemented with handbooks and selected bibliographies, besides materials used in (1) and (2) above.

Some in-service teacher training programmes use a specific combination of materials. For example:

1. Continuing Education for Teachers (CET) programme uses radio cassette as well as printed material. The programme makes use of learning activity packages supplemented by discussion and self-evaluation.
2. Distance study programmes use modules, radio and cassette tapes.
3. Practicum courses in specific subject areas use films, film strips, cassettes, video tapes and various handouts.

Sri Lanka

Most of the in-service teacher training programmes for teachers and other educational personnel are either contact courses or contact-cum-correspondence courses. Therefore, the exemplar materials are mostly in the form of handbooks and pamphlets prepared to suit the various levels of in-service teacher training that is being conducted. The exemplar materials used are:

1. Teachers' handbooks for grades I and II – These handbooks are concentrated more on psychology of child development, preparation of integrated lesson plans and 'flow' charts. These are used as teaching guides for beginners. Some other handbooks titled "Help for learning" and 'Background for Development' – all involving the primary child – were prepared by the curriculum development centre and used in in-service programmes. A special handbook was prepared in 1978 named 'Kindergarten Teachers' Handbook' to be used by the teachers of pre-grade I classes. The emphasis was on simple exercises of language development and numeracy and guidance on the child's physical development.
2. Handbook on 'Primary Maths Project' – This handbook was prepared according to the new primary maths programme. This too was a teachers' guide in the teaching of mathematics in primary grades.
3. Higher primary (grade III, IV, V) teacher development course handbook – This special handbook was a guide to "Teacher Instructors" to be used in in-service teacher training programmes at the circuit level. Instructional materials were arranged under various 'disciplines' and 'sessions'.
4. Other course guides – These were prepared for secondary teachers as well as for correspondence courses. A newsletter called 'Experiences' was prepared by every District Primary Education Committee and distributed among primary teachers.
5. 'Slide set' – is also being made use of at primary in-service teacher training programmes. These slides show the primary classroom activities of pilot schools.
6. 'Radio Talks' – Recently a series of radio talks for teachers on primary education and evaluation were conducted. A 'primary class' too was conducted over the radio for the benefit of the primary teacher. This has

come to stay as a useful and permanent feature of the in-service education programme in the country.

Thailand

There are two targets of training programmes:

1. Training of Teachers/Principals – in instructional materials.
2. Training of academic and administrative personnel–in most cases training is planned as a 'Training Package' which consists of several types of exemplar materials for example:
    a) Syllabus, curriculum guide, teachers' manual, textbooks, workbooks, etc.
    b) Slides, transparencies, videotapes, films, cassettes, etc.
    c) Various charts and posters.

The idea of Resource Centre is very much stressed throughout the year as a major contributory step in the teacher training programmes. The national radio and TV networks are used as supportive measures.

Chapter Four

OVERVIEW AND SYNTHESIS OF EXEMPLAR MATERIALS USED AND DEVELOPED

Overview

The countries in the Study Group have developed and used a variety of exemplar materials in their in-service education programmes. All the countries draw heavily upon the use of printed materials that come in various forms. However, the high cost of printing materials nowadays has been felt as a limiting factor. The advantages of projectable materials have long been realized by the different countries. Some countries have gone a long way in the use of educational technology in their in-service education programmes, but on a very limited basis due to the high cost attached to this strategy.

In the development and selection of exemplar materials used in the in-service programmes, all the countries consider largely the feasibility, practicability, effectiveness and cost of the materials. Hence, the type and nature of the materials developed and used by the countries are greatly affected by local conditions such as financial capabilities of the countries, needs of target clientele, existing resources, strategies adopted in the programmes and other similar factors.

Kinds of materials developed and used

The exemplar materials presented by the participating countries include various printed materials, projectable materials and other locally available materials. The printed materials presented include mimeographed hand-outs, handbooks, reading manuals, learning packages, guidebooks, modules, self-learning kits, annotated bibliographies, textbooks, charts, pictures, discussion papers and information papers. On the other hand, the projectable materials are films, filmstrips, transparencies, slides and video tapes. Audio materials include radio-cassettes and tapes. Locally available materials include models, specimens, laboratory equipment and apparatuses.

Exemplar materials in relation to programmes and strategies by the countries

From the presentations made by the participants in the Study Group it was noted that there are certain commonalities on the kind and nature of the in-service programmes organized and on the materials used. However, it was also evident that there are a lot of variations in the materials developed and used on specific strategies in every country. The following is a brief account of the different materials used in relation to programmes and strategies.

In Bangladesh, the in-service training programmes for teachers are predominantly in the form of contact courses. These courses utilize mostly printed materials in the form of guidebooks, mimeographed copies of lectures, textbooks, reference books from the libraries, maps and charts. Modules are mainly used as enrichment materials in population education, commerce, agriculture, social sciences, Bengali and science in-service courses. Radio-cassette tapes are used in phonetics courses in the universities, education extension centres and big institutions.

In India different in-service courses organized by the NCERT utilize a variety of instructional materials. These include printed materials which are mostly self-instructional in nature. They are used for enrichment of content and for guidance in teaching practices for correspondence and other courses. Teacher's guides have been prepared, suggesting practical activities, particularly the use of environmental resources. Many of these things have been developed with the collaboration of the users. Radio and television have been extensively used in the in-service training of primary school teachers. Pictures, slides, sculpters, and tapes of recorded music have been developed for courses in Indian Art and Culture.

In Indonesia, most of the in-service training programmes for teachers are in the form of contact courses. Correspondence courses are available to teachers on a limited basis. The contact courses draw heavily upon the use of printed instructional materials such as handouts, handbooks, reading manuals, charts, pictures and other similar materials. Like in India, use of modules seems to be a significant feature of the in-service education programmes in the country. The correspondence courses in Indonesia use modules which are self-pacing and self-contained. The contact courses also use modules. Radio-cassettes, tapes, slides, filmstrips and video-tapes are used to complement the learning experiences in the contact and correspondence courses.

In Malaysia, the primary strategy used in the in-service education programmes is the contact course. These are formally conducted in the teacher training colleges or in similar training centres. Hence, all sorts of projectable and printed materials available in typical colleges and universities are utilized to the fullest extent. The mobile courses for agricultural science teachers use mostly printed materials like handouts, workbooks, worksheets, diagrams, and course syllabi. These materials are envisioned to complement as well as supplement the lectures of the trainers. The use of lecture is reduced to the minimum. The courses of studies or syllabi come in the form of modules and lesson units.

In Nepal, materials in the form of modules, textbooks, handbooks, and reading manuals are used in the different in-service courses. Transparencies are commonly used in programmes conducted at the Kirtipur multiple campus. The use of radio for the distance study programme is still in the formative stage. At the moment, the self-learning materials are being developed.

In the Philippines, in-service education for teachers and other school personnel is achieved through formal courses for degree and non-degree programmes, summer institutes, seminars, workshops, conferences, practicum and field work related to specific courses. It is also done through "reach out" activities of the different personnel of the Ministry of Education and Culture, government colleges and universities, and through distance study programmes. In the in-service education programmes conducted by teacher training institutions such as those of the College of Education of the University of the Philippines, Baguio Vacation Normal School and Philippine Normal College, both printed and projectable exemplar materials are used. The courses conducted by the Regional Science Teaching Centres and the Regional Staff Development Centres also utilize these materials. In-service courses in the division, district, and school levels rely heavily on the use of printed exemplar materials such as handouts, modules, manuals, and teachers'guides. However, projectable materials are also used in places or schools where electric power and equipment are available. Printed materials in the form of modules are used as support media in the Distance Study Programmes of the Ministry and the University of Mindanao. The main lessons are aired over the radio. Projectable and printed exemplar are utilized to complement as well as supplement lectures and discussion.

In Sri Lanka, the in-service programmes organized by the Curriculum Development Centre are mostly contact courses. The courses are either done in the CDC, district or school level. Exemplar materials used in these courses are usually in the form of printed materials like bulletins of general information, hand-outs, excerpts of lectures, questionnaires, curriculum guides, posters, and summary of lessons. Slides and radio-cassette tapes are also utilized in the courses conducted by the CDC and District Offices. The radio talks aired during school days on integrated lessons are also used as a medium of upgrading the knowledge and competence of the teachers. The teachers have curriculum guides to complement the learning experiences aired over the radio.

In Thailand, the in-service training activities are focused on the curricular innovation and renovation that has recently been effected. In-service training is being conducted side-by side with curriculum development in order to familiarize the teachers with the objectives, content, methodologies and evaluation systems adopted in the new curriculum to ensure its successful implementation. In this regard, massive as well as intensive in-service education programmes for teachers are currently carried out in the country. The new syllabus, teachers' manual, workbooks, textbooks, learning packages for children, evaluation materials are the primary exemplar materials used in the in-service training courses. Slides, transparencies, radio-cassette tapes are also utilized to enhance the effectiveness of the forums conducted for teachers.

Similarities and differences among the countries in relation to programmes and materials used

An analysis of the experiences expressed by the participating countries in the use and development of exemplar materials for in-service teacher training programmes reveals a common 'drift' towards experimenting with new and better techniques. Most of the in-service training programmes are either contact courses or contact cum-correspondence courses. The following common trends are observed in the use of exemplar materials:

1. Use of charts, graphs, maps and similar conventional teaching aids;
2. Emphasis on self-instructional materials in the form of handouts, worksheets, supplementary books, etc.;

3. Motivation and 'drawing in' of participants in in-service training programmes by repeated use of questionnaires, discussions, modules and workshops;
4. Preparation of exemplar materials by participants themselves in some countries; and
5. Increased and better use of the radio, cassette, TV, and film in the in-service programmes of some of the countries.

It should be noted, however, that in the use of these materials, there are regional differences in the level, strategy and the extent to which they are being used. These should be viewed in light of the problems each country is faced with. For example, in the preparation and use of even simple teaching aids in India, the vastness of the country poses an economic problem. Introduction of the module is an innovative feature adopted in Indonesia, where at the beginning of the in-service programme the participants are expected to work individually on the modules. An attempt to maintain a minimum standard in "lesson units" has been tried out in Malaysia in the form of a "guide book" with objectives, suggested content and cross referencing so that topics related to the overall school curriculum are clearly stated.

In the Philippines, some in-service programmes use a specific combination of materials. The Continuing Teacher Education Programme, the Distance Study Programme and the practicum courses held for teachers in different subject areas use a variety of materials and methods ranging from lectures and discussions to the use of cassettes, films, film strips and video tapes.

Sri Lanka has experimented in the formulation of a 'curriculum guide' for the benefit of the teacher instructors. They are to be used at circuit level in-service teacher training programmes.

In Thailand, a training package consisting of curriculum materials and training guidelines are given to trainees in both the administrative group and the teachers/supervisors group. As for the latter, after practising how to prepare lesson plans and teaching aids during training, teachers and supervisors are given a set of prototype teacher-made teaching aids. Additional materials and handbooks describing how to make and use low-cost teaching aids are expected to be provided later.

Summary

It is generally agreed that in all the participating countries, a genuine effort is being made to improve the quality of education – with particular focus on proper attitudes, creativity and innovations. There have been attempts to change the processes of learning and teaching during the last few years. Educators are faced with the challenge of making educational programmes more meaningful and realistic in the context of the socio-economic conditions of the countries. Consequently, different strategies have been tried. The participants repeatedly focused their attention on the following problems and constraints in relation to in-service teacher training programmes and the development of exemplar materials.

1. The overall need to have more and useful reference material for the benefit of the teachers as well as organizers of in-service teacher training programmes. Some countries are in process of setting up area wise and institution wise learning resource centres. It will be sometime before they become operational, and can be assessed.
2. Problem of remoteness – the urgent need to disseminate knowledge and new methods to far corners of the country. Decentralization of administration and the use of local resources was regarded as a necessity.
3. As there are marked differences among the participating countries in terms of levels of development, technological improvements, financial resources and accessibility to facilities, it was suggested that close and continuous rapport should exist among the countries in the planning and implementation of in-service teacher training programmes.
4. It was generally agreed by all the participating countries that as colossal sums of money are being spent on education, it is highly appropriate and necessary to lay emphasis on the promotion and evaluation of attitudes, creativity and work experience.

Chapter Five

GUIDELINES FOR PREPARATION OF EXEMPLAR MATERIALS FOR IN-SERVICE TRATINING OF TEACHERS AND OTHER EDUCATIONAL PERSONNEL

The exemplar materials considered here include instructional material developed for use in the in-service education of teachers and other educational personnel. It may be material used in in-service courses or material to which educators may refer in their day-to-day work. Its aim is to help educational personnel to do their work effectively.

The exemplar material should serve as a model for the development of similar material. Therefore, it has to be planned and prepared with care.

Each type of material has its advantages and limitations. Therefore, special considerations have to be given weight in developing it. But certain general guidelines in the development and evaluation of the material need to be kept in mind.

Development of exemplar material: important considerations

1. Target clientele

In developing material it is necessary to determine for whom it is meant, and learn about the number and nature of the clientele.

a) **Level**

Material must be suited to the level of the participants. If mixed levels are involved, the materials should contain learning experiences for all levels. The following questions need to be asked.

- i) What is the level of the participants? Are they primary school teachers? Secondary school teachers? teacher educators? supervisors? or some other group?
- ii) What is the background of the participants? (Including education, experience, reading ability and reading habits.)
- iii) Are they familiar with the medium used? Are they able to interpret?
- iv) What is the situation in which they are working (rural, urban, deprived area etc.)?

b) **Number**

The number of the participants will also determine the nature of the material. Some types of material can be used only in small groups. Others can be used for large numbers. There are some which, due to overall cost or time consumed in preparing, are worth developing only for a large number of users.

2. Needs and purpose

Material should be developed only if there is a need for it. Therefore, it is first necessary to find out the needs of the clientele. From the needs identified, a selection may have to be made to determine what will be the aim and purpose of the material.

a) Need area

This refers to the specific area in which help is required. For example, help may be needed in teaching a particular subject, or in handling certain situations in class or outside it.

b) **Aspects of work and personal development in which help is required.**

i) Knowledge change

Sometimes teachers' background in a subject is not adequate. In some cases there have been new developments in the field with which teachers have to be acquainted. It is often necessary to provide enrichment in content to teachers so that they can have a fund of knowledge on which they can draw to make their teaching stimulating for all levels of students. Teachers may also need information on developments in pedagogy.

ii) Attitude change

The need for attitude change requires a completely different approach to that of knowledge change. The issues considered and the procedures used in the material must be directly related to change of attitudes.

iii) Development of skills

For the development of skills, the material needs to provide not only the necessary information and rationale of the skill, but also stimulate the practice of it. It is only when clarity is obtained on needs that the objectives of the materials can be specified. The material will have relevance if it is related to needs.

3. The situation in which the material is to be used

It is necessary to know if the material is to be used in a face-to-face situation, or if the participants will be at a distance. For distance programmes, special care has to be taken to ensure that there is no ambiguity.

4. Type of material

Clarity also needs to be obtained in whether the material is self-contained, or is to be supplemented by other forms of instruction.

5. Feasibility of use or multiple use

The best material cannot be of value unless it can be used. The factors to consider are:

a) **Time available**

While planning material, it is necessary to ascertain how much time is availabe for producing it. If there are no external constraints, time targets may be set so that the work does not drag on indefinitely. Sometimes certain imperfections and shortcomings may have to be tolerated in order to complete it in time.

b) **Cost of production**

Cost is a very important consideration. Material has to be developed in a variety of areas and reach a large number of participants. Unless the cost is low, the material produced will be very limited. With a little imaginative improvisation, low-cost material can often be prepared which is as effective as expensive material.

c) **Re-usability**

Closely related to cost is the factor of re-usability. If material is prepared in a form that allows for repeated use, the overall average cost is considerably reduced.

d) **Reproducibility**

Where a central organization conducts courses for would-be resource persons, who in turn are responsible for training others, it is helpful if material can be reproduced by the resource persons whenever required.

e) **Facilities available and use of technology**

The type of material that is suitable will also depend on the facilities and technology available. For example, material that needs the use of a projector or electric power cannot be used in remote villages.

f) **Distribution**

Where the client group is at a distance, material should be such that it can be conveniently despatched.

6. **Demonstrated effectiveness**

Exemplar materials need to be tried out and tested. It is necessary to make plans for trying them out. If due to lack of time, or for other reasons, an empirical test is not possible before first use, it may be necessary to collect data on the material before re-use.

7. **Involvement of users/clients**

If the client group is involved in planning and preparing the material, it will ensure that the material is in line with their felt needs and be more meaningful for them. Further, it will make them interested in the programme and feel responsible for it. It will also improve the material, because their contributions are likely to make it related to the conditions under which they work.

The users should be involved at each of these stages:

a) **In determining needs**

The participants will be able to give information about their felt needs.

Discussions or questions may be used to help them to become aware of other needs.

b) **In planning and developing material**

The clients should be consulted in decisions on the content to be included and the type of material that would be useful and interesting for them. They can be asked to contribute to the actual development of the material and participate in the revision and try out. It gives users a sense of achievement if they can help in the production and distribution of the material. Involvement also increases one's sense of responsibility.

8. **Interest and appeal**

It is not sufficient that material contains the subject matter required to meet the needs. It must have an interest and appeal for the users. The methodology of presentation is important. The material will also be of interest if its content is suited to the level, needs and interests of the participants. The participation of the users, discussed above, helps to ensure interest and appeal.

The Study Group developed a sample rating scale for evaluating different types of instructional materials. It is shown below. The rating scale can be modified to suit particular situations and needs.

RATING SCALE FOR EVALUATING EXEMPLAR MATERIALS

Instruction: Please tick ( ) the column which corresponds to your answer to each question.

	Very much	Much	Not Much	Not at all
1. Is the material relevant to the user's needs?				
2. Is it appropriate to the user's level?				
3. Is it appropriate for the specific purpose of the lesson/topic?				
4. Are the situations used relevant?				
5. Is the material self-sufficient (i.e., can it be used by itself)?				
6. Can it be economically produced?				
7. Does the use of the material entail sophisticated facilities/equipment?				
8. Are the support facilities needed available to the user? (e.g. projector, duplicating machine, etc.)				

	Very much	Much	Not Much	Not at all
9. Can the material be used repeatedly?				
10. Is the material interesting?				
11. Does the material encourage creativity of the user?				
12. Does it sufficiently reflect the development needs of the country?				
13. Have the users been sufficiently involved in a) the planning of the materials?				
b) the production of the materials?				
14. Has the material been found to be effective in previous instances?				

Guidelines for developing selected instructional materials

Besides the usual printed materials and visuals like pictures, charts and tables, other instructional materials were reported in the Study Group Meeting as being used for in-service education of teachers in some member countries.

Four types of materials were identified for more detailed discussion. These are: (1) instructional modules, (2) teachers' guides, manuals and/or handbooks, (3) transparencies, and (4) slides and slide-tapes. Because of their demonstrated effectiveness in some countries, these materials could be developed and used on a wider scale in most of the member countries.

The discussions below include planning, preparation and production of these materials according to the guidelines developed in the first part of this chapter.

Instructional modules

1. **Definition and characteristics of a module**

A module is a set of learning opportunities organized around a well-defined topic which contains the elements of instruction, specific objectives, teaching-learning activities and evaluation using criterion-referenced measures.

The following are characteristics of a module:

a) It is a self-contained, independent instruction unit.

b) It has a set of well-defined, systematically organized learning opportunities.

c) It clearly defines the objectives to be achieved.

d) It includes means of evaluating the work.[1]

2. **Objectives and use of modules**

Modules are prepared as self-learning materials in contact courses as well as in correspondence courses.

In contact courses, the group of participants using modules should not be too large, but in correspondence, the group could include a large number of participants. Since a module is a self-learning material, it requires simple language and a specific style of writing. It also requires a certain level of reading ability. It should be written in such a way that the user is kept interested in reading it.

A module is very useful in courses designed for enrichment and change in participants' knowledge and skills. It is not as effective for attitude change.

The main constraints in using modules are the participants' heterogeneity in reading ability level, background knowledge and motivation. For correspondence courses, the evaluation procedure is an additional difficulty.

3. **Stages in preparing instructional modules**

a) **Planning**

i) **Choice of topic**: In choosing the topic to be presented through a module, the following questions should be considered:

a) For whom is the module to be prepared? This can be considered in terms of:
- users' needs for enrichment, change, or improvement;
- users' concern: knowledge, skills, or attitude;
- users' reading ability and background knowledge.

b) What are the general objectives of the training programme which will use the module?

c) Under what conditions or situations is the module going to be used--contact or face-to-face situation, or a distance study programme?

ii) **Preliminary work**: In the preliminary work of preparing a module, the following steps are suggested:

a) **Collection of basic information**, including:
- characteristics of the target population to determine number and level of target clientele in order to enable the module developers to divide the population into groups according to level of education, and
- the nature of locally available resources.

---

[1] APEID, *Developing Instructional Modules for Teacher Education – A Handbook,* Unesco Regional Office, Bangkok, 1978, p. 16

b) **Preparing working teams**, including one for drafting and revision of the module and one as a sanctioner.

The team for drafting and revision could consist of:

1. subject matter specialists,
2. a methodology expert,
3. an artist or illustrator, and
4. a language specialist.

The team of sanctioners could consist of:

1. representative users,
2. curriculum planners,
3. a parallel group of subject matter specialists, methodologist, artist and linguist; and
4. key technical and administrative personnel of the agency which will use the module.

c) **Provision of facilities, including:**

1. books and other references relevant to the topic of the module; and
2. writing or typing facilities.

d) **Provision of funds** for the above activities

e) **A working schedule** from the beginning of preliminary work up to the time the module is used. This schedule should indicate how long it takes to do every activity, including the preliminary work, drafting, sanctioning, revision, editing, reproduction and distribution.

The following judgement criteria should be considered in this stage of development:

1. Use of community resources;
2. Time availability;
3. Availability of facilities;
4. Involvement of users.

b) **Designing**
This stage includes three main activities:

i) **Statement of objectives.** Each objective should be explicitly formulated, and should specify the expected learning outcomes in observable and measurable behavioural changes. The objective has to be stated in terms of what the learner will be able to do at the end of a set of learning experiences. The focus should be on the expected terminal behaviour – the behavioural objective. A behavioural objective should be stated clearly and precisely so that anyone who reads it will know what the learning outcome of a given activity will be.

ii) **Selection of learning activities.** In selecting the learning activities the following directions should be taken into account:

a) Learning activities should be planned based on the learner's entry behaviour.

b) They should be based on the needs of the learner.

c) They should also be based on the desired terminal behaviour which is the ultimate outcome of the learning activities stated in the objectives.

d) They should be arranged in a careful graduation, so that the the learners can proceed step by step.

e) They should provide adequate practice.

f) They should provide for individual differences, i.e., they should enable the learners to learn in the manner and at the speed best suited to them.

g) They should provide the learner with knowledge of his progress.

iii) **Decision on format.** The format of a module should guarantee its self-sufficency since it is used in a self-learning situation and the material is self-contained. For this reason the format of the module includes the following:

a) A title which is clear, definite and relevant to the theme.

b) An introduction which tells the users about the theme and its importance and relevance. It may also indicate the target clientele for whom the module was prepared. It should include a brief and clear note concerning the rationale for the module. The introduction should serve the important purpose of stimulating the interest of the users.

c) The overview, which introduces to the users the theme of the module, its purpose, structure, organization and use in general terms. It should also give an outline of the learning situations furnished by the module.

d) Instruction to the users which provides clear directives on how to proceed and what to do after each step.

The instruction should cover the following items:

- How the user can check whether he possesses the knowledge and skills which are prerequisite to using the module;
- When the user should take the pre-test, to determine his level of ability and to decide whether to proceed with the module or not;
- How the user should use the learning materials and undertake other learning activities, projects, study sheets, worksheets and tests;
- How the user can decide whether to proceed to the next module or undertake additional remedial exercises, in consultation with the trainer.

c) **Evaluation** which is a continuous and comprehensive process, includes three stages:

   i) **Pre-test**, an achievement test to help the user know his level of ability in subject of the module. If his ability is up to the criterion-referenced standard fixed by the module developer, he may skip the module and proceed to the next one. If his mastery is below that expected, he should study the module.

   ii) **Formative test**, done at the end of the learning unit or learning activity. Knowledge of the results in these formative tests acts as a reinforcement to the user in his learning endeavour. If the user does not reach the expected mastery level, he should go through the learning activities again, after consultation with the trainer. There may be as many formative tests as there are units or lessons.

   iii) **Post-test**, which serves as a check on how well the participants have studied the module.

Evaluation has developed into a specialized branch of education. Writing test items demands a special type of skill obtained through sustained practice. The module writer is advised to consult an evaluation expert and, if possible, seek his involvement in framing the tests. However, the following suggestions may be helpful to all module writers:

- It is necessary for a module writer to be sure that his test covers all objectives and content points. If the objectives are in the cognitive, effective and psychomotor domains, the test should include items from all three.
- It is also necessary to make sure that the test evaluates items in the content and the objectives in proportion to their relative importance. In other words, if knowledge application and the practical use of skills are emphasized in the objectives, but the test measures only learning by rote, it will be a defective test.
- The test writer should make sure that each test can be scored objectively. There should not be any vagueness or ambiguity about the correct answers to the test questions. This will make the test a reliable instrument to assess learning progress. If there are essay-type questions, they should be properly structured to enable the student to understand what is expected of him. Essay questions should have a key with model answers, along with a grading scheme.

- The module writer should take care to provide challenging questions to assess the overall development of the learner. Modules are not meant to impart information only, but to encourage the learner to grow in every way.
- The module writer should use a variety of tests to arouse and sustain the interest of the user. They may be paper and pencil tests or performance tests. In paper and pencil tests, the questions can be of different types; for example, alternative-response questions, with 'true-false' or 'agree-disagree' answers; or multiple choice tests, with four or five choices from which the learner selects the correct answer; or 'matching' tests. In addition, there are free-response type tests, such as completion tests, essays or short-answer questions. Rating scales and observation schedules can also be used as evaluation instruments and are especially useful in evaluating the development of attitude and interest. Performance tests are generally found useful in assessing skill acquisition. The decision about which type of test to use should be based on consideration of the content, the objectives, the learning activities provided, and other such factors:
- **The objectives**, which provide direction to the desired changes in participants' behaviour, which may include knowledge, skills and attitudes formulated as general, as well as specific, objectives.
- **Learning activities**, which are provided in well-planned sequential order, to enable the users to change their behaviour in the predetermined direction.
- **The trainer's manual**, which consists of clear instructions for trainers who are going to use the modules especially in contact courses, as well as reference lists for reading materials for the trainers.

The following judgement criteria should be considered in the designing stage:

i) Relevance to purpose and objectives
ii) Specificity in formulating objectives
iii) Suitability
iv) Simplicity
v) Interest of users

4. Drafting and editing

The following activities are recommended in the drafting and editing stages:

a) **Writing of the first draft of the module.** This activity is done by the "drafting and revision team", using the available facilities, within the time provided in the working schedule.

b) **Sanctioning session.** This proceeds in the following steps:
   i) Presentation of the first draft by the drafting and revision team;
   ii) In-depth discussion and analysis by the team of sanctioners, resulting in recommendations for first revision;
   iii) In-depth discussion of sanctioners' recommendations by the two teams, resulting in adopted recommendations for first revision;
   iv) First revision by the drafting and revision team, based on the adopted recommendations.

c) **First try-out on individuals.** The try-out is aimed at obtaining immediate reaction concerning:
   i) readability of the module;
   ii) interest and motivation of the users;
   iii) appropriateness of the content;
   iv) simplicity of format.

   The try-out will result in a series of suggestions for further revision.

d) **Second revision.** This is done by the drafting and revision team, based based on suggestions from the first try-out and resulting in modified or revised modules for limited production.

e) **Second try-out** on a small group of more representative actual users in a more real situation. This is aimed at obtaining the same information as those obtained in the first try-out. Additional information is obtained concerning effectiveness of the modules.

j) **Third revision,** done by the same drafting and revision team, based on information obtained in the second try-out, resulting in a final draft ready for editing.

g) **Editing.** The same team of drafters and revisers do the editing work on the final draft, resulting in a draft ready for reproduction.

   The following judgement criteria should be considered in this stage:
   i) use of community resources
   ii) simplicity
   iii) usability
   iv) self-sufficiency
   v) appeal
   vi) effectiveness

5. Production and Distribution

For efficiency, it is recommended that the module be produced centrally. The distribution mechanism should be organized in accordance with the working schedule set up earlier.

The following judgement criteria should be considered in this stage:

- a) Availability of facilities
- b) Availability of budget
- c) Availability of time
- d) Availability of good communication/transportation system.

Teachers' Guides/Manuals/Handbooks

A teacher's guide may be defined as a book or series of booklets designed to help teachers to implement the curriculum effectively. The Guide should contain explanations on:

- a) Principles, concepts, objectives and contents laid down in the curriculum.
- b) Suggestions on:
  - i) how to prepare and conduct teaching-learning activities;
  - ii) how to prepare and use instructional aids;
  - iii) how to conduct evaluation;
  - iv) how to conduct diagnostic remedial programmes; and
  - v) how to use certain books in relation to the curriculum.
- c) Appendices containing specific information which teachers may need.

A teacher's guide should have the following characteristics:

- i) It should be very operational in nature.
- ii) It should be comprehensive.
- iii) It should be specific to the materials suggested for teachers.
- iv) It should be simple in format and language.
- v) It should give examples from real life.

Stages in Preparing Teachers' guides

a) Planning

In planning a teacher's guide exploratory and preparatory work should be done to obtain a clear concept of what is needed by the user. This can be done through:

- i) An assessment of users' needs to determine the purpose and scope of the guide. This assessment could also result in identifying the limitations of using teacher's guides in in-service training programmes.
- ii) A search for principles underlying teaching-learning. This search should be done through consultations with the prospective users and key people who might decide basic policies for its use.

Based on the previous two steps a format for the teacher's guide can be adopted. The format could include the following.

- i) Title, which should be unambiguous, definite and relevant to the theme.

ii) **Introduction**, which includes the purpose and scope of the guide, and instructions on how to make the best use of it.

iii) **Operational guidelines**, which explain the step-by-step use of respective materials and specific examples.

iv) **References and appendices**

Preliminary work involves the collection of information to decide what type of materials and what content should be included in the Guide. For this purpose, consultations with teachers, teacher educators, and even student-teachers are recommended.

A drafting and revision team consisting of teachers, teacher educators, subject-matter specialists, a media specialist, and a curriculum specialist should be organized. Likewise a team of sanctioners, consisting of a group parallel to the drafting and revision team, key academic and administrative personnel, and representative users should be set up.

b) **Writing and development**

This stage includes:

i) Writing of the first draft by the drafting and revision team.

ii) First sanctioning of the draft by the team of sanctioners, resulting in recommendations for first revision.

iii) Consultation session between the drafting and revision team and the team of sanctioners, resulting in adopted recommendations for the first revision.

iv) First revision by the drafting and revision team.

v) Micro-testing on a small group of prospective users, and obtaining detailed suggestion for further revision.

vi) Second revision based on recommendations adopted from the micro-testing.

vii) Second sanctioning and consultation session between drafters and sanctioners, resulting in further adopted recommendations for the third revision.

viii) Third revision and editing.

c) **Production and distribution**

a) **How to undertake the microtesting**

i) The testing is done by small groups, each group representing different categories of teachers in terms of their varied qualifications, experience, school conditions, and socio-geographical factors (urban, rural, remote, ethnic minorities etc.).

ii) Separate items, or small groups of items, are considered by each group.

iii) Adequate provision of facilities and time are given to these representatives to critically study the materials with a view to induce maximum criticism and suggestion for improving the draft materials.

iv) Suggestions are invited from the teachers for improving or varying the mode of presentation or for revising questions and illustrations to suit different areas and situations.

v) Maximum effort is made to ensure that materials, as they finally emerge from this exercise, are largely contributed by the users, although noted by the discipline and education specialists.

vi) Educational administrators, opinion-formers, and parents may be involved in some of the exercises to give them a feeling of participation and ensure their understanding of, and support for, the project.

Transparencies

A transparency is a visual teaching aid prepared on transparent material such as cellophane or plastic sheets and screened on an overhead projector.

Transparencies are used to supplement lecture discussions. They are very effective for discussion of material such as tables and charts. One transparency can be mounted over another, following the development of the subject matter. A transparency allows for pacing because it can be shown for as long a time as required.

a) **Planning of Transparencies**

i) It should first be ascertained that power and technical facilities will be available in the situations in which the transparencies are to be used.

ii) Choice of ideas to be illustrated.

- In the actual preparation of transparencies the first step is to decide on the ideas that are to be illustrated. This has to be done in consultation with teachers, teacher educators and student teachers.
- Information on existing allied materials on the topic may also be collected.
- The academic and technical team that has to work on the transparencies has to be formed. The team should include a subject specialist, an editor, a graphic artist and, if possible, representative users.
- Even though tranparencies are inexpensive, it is necessary to insure that the required budget is available for the work. Efforts should also be made to see what low-cost material can be collected for the purpose.
- Scheduling. The programme of work needs to be drawn up. It

should include time targets for each step.

iii) Designing

- Statement of objectives

  Having pinpointed the target group and the topics to be illustrated, it is possible to proceed to a specific plan of development of transparencies. The first thing is to formulate the objectives of respective transparencies to be made. The objectives would be stated subject-wise and situation-wise.

- Selection of learning activities

  Once the objectives have been stated, the next step is to consider the possibility of the realization of objectives by the utilization of transparencies. Selection of the content to be delivered to the learners and focusing on specific parts of the content follows; then decision on the type of transparencies that are deemed to be most appropriate to deliver the message to the learners.

  The prospective participants need to be consulted in arriving at the decisions mentioned above.

- Decision on art and graphic work will have to be taken. This would decide the best mode of presentation.
- Decision also needs to be made on whether it is desirable to mount parts of a diagram. If so, each part has to be planned in sequence.
- Alternative forms of presentation as fail-safe measures need to be planned.
- Where necessary, arrangements may be made to prepare frames for making the transparencies firm.

b) **Preparation of transparencies**

The preparation of transparencies for use in the in-service training of teacher again needs to be done with care. The following steps are involved:

i) Drafting or writing on a drawing sheet or a graph paper of materials which are to be produced on transparencies. This step involves drawing of charts, diagrams, figures, tables, etc. with suitable titles and captions which will be explained and discussed later on in a class.

ii) Consultation between subject specialists and art workers. There should now be mutual consultation between subject specialists and art workers on the drafts. When drafting is completed, then it could be discussed with experts in related academic areas and art specialists. These people may suggest something good which will make the transparencies more effective and interesting.

iii) Consultation with students

This can be done by selecting a few student-teachers and discussing the drafts with them, seeking their suggestions for making the illustrations more interesting and useful, and improving them if necessary.

iv) Collection of plastic and acetate sheets

In case ready-made plastic sheets for making transparencies are not available, or the budget does not permit the purchase of these materials, inexpensive transparent plastic bags or ordinary plastic sheets could be collected and cut into proper size. Cardboard paper frames should be pasted on the edges to make the sheets firm and easy to handle.

v) Writing and drawing – When the above mentioned materials are ready, writing and/or drawing on the transparencies can be started. If the services of a staff artist are available, he could be asked to reproduce charts, graphs, tables, figures, diagrams, etc. or whatever has been drafted before. Use of multi-colour felt pens or overlays can be made by combining two or more successive sheets if necessary.

vi) Try-out and revision – Three or four student-teachers may be selected and the transparencies tried out on them, and revised if necessary.

vii) Preparation of "fail safe" material

In case of problems in projection, a simple alternative mode of presentation should be prepared, and made available to the user.

viii) Co-ordination with printed material

Transparencies are used as supplementary material for lecture discussions. Hence, it is necessary that they be co-ordinated with the subject matter of the lecture.

c) **Production, distribution and storage**

Some transparencies which can be used for a longer period and in more than one institution/campus/college, should be reproduced in large numbers. This may save time, and cost less than duplicating later. Arrangement of proper distribution of such materials should be made. This can be managed by a central agency, which is responsible for in-service training of teachers. Some arrangement should also be made for storage. If the producer and user is an individual teacher educator, he/she should store them carefully, using paper in between the plastic sheets so that the transparencies do not stick together. They should also be properly filed. In case of a central agency, arrangement for storage and proper filing and indexing is even more necessary and important.

Slides and slide-tapes

A slide is a processed transparent film mounted on a frame and used with a slide projector; if sound is dubbed into a tape and synchronized with the slide, it is a slide-tape.

Slide-tapes were once regarded as luxurious items for many developing countries. However, film processing has become simple; some expendable supplies can be locally produced in many countries. Moreover, there are some simple and low-cost techniques of showing slides. Therefore, slides and slide-tapes are among the popular instructional materials used in teacher education.

A slide shows a clear three-dimensional picture, actual colour and form, as well as precise action (still). In addition, a slide is light, small, portable and can be shown in a room which does not require complete darkness. Slides and slide-tapes are used to supplement lectures and discussion as well as for display.

Stages in preparing slide-tapes

a) Planning

i) Choice of topics

It is important to identify the topics in which slides could effectively facilitate teaching-learning. This is done by examining the syllabus, teacher's guide or teacher's manual. A survey of teachers' opinions/needs of instructional aids could be done. An accompanying list of aids may be attached to the survey form. The topics identified in the survey should be listed.

The judgement criteria to be considered are factual reliability, relevance to the topic, interest and appeal to viewers, simplicity, clarity, practicality, and feasibility of technical production. As for the target clientele, consideration should be made of their academic background, experiences, and subject areas or responsibility. If possible, a user's manual indicating topics, lessons, subject or subject areas, and suggesting necessary arrangements of other aids and classroom activities should be prepared. This manual would be useful for less experienced teachers or those who work in the deprived areas.

ii) Preliminary work

Suggestions from curriculum specialists, subject specialists, supervisors, media specialists, students as well as interested and knowledgeable people should be sought. Similarly, information should be collected from research reports, seminar/workshop reports, as well as other relevant references. A task force team should be appointed. It should be composed of a writer, an editor, a graphic artist, a photographer and a media specialist. Likewise, an operation plan should be set up.

iii) **Designing**

This involves the following steps:

- Formulate criteria for preparing an overall script, describing learning objectives, teaching-learning activities, expected outcomes, evaluation, art work, object and site selection, as well as concept and style to be put in the commentary or script.
- Prepare an overall script containing commentary, specifications of teaching-learning activities, art/graphic work, as well as object and site for photograph taking.
- Revise and finalize the overall script.

b) **Preparation of slides and slide-tapes**

This stage includes the following:

i) Script writing
ii) First editing
iii) Art/graphic work, then photograph-taking and processing
iv) Object and site selection, then photograph-taking and processing
v) Edit art/graphic work, and preview the processed films
vi) Dubbing of sound on tape to synchronize with slides
vii) Try out and revise the product
viii) Finalize editorial work and product

Locally available material or inexpensive substitutes should be used. The slide developer should take time to ascertain effective photograph-taking in order to minimize the cost of production. The criteria laid down in the planning and designing stages should also be considered at this stage.

c) **Production, distribution, management and maintenance**

This stage considers among other things, the quantity to be produced, the distribution and dispatch, and the maintenance of material and equipment at minimum cost.

Good quality materials often last longer than poor quality substitutes. They also give better results; therefore, it is more economical in the long run, if better quality material is chosen.

A system of circulating and repairing the material should be organized, which will help in distribution over a wide coverage of users and keep the materials in good condition.

Chapter Six

FOLLOW-UP ACTIVITIES

One indication of the immediate effects of an activity such as the Study Group Meeting is the clarity of plans and projects which the members propose to undertake in their countries. On the basis of the interchange of ideas and experiences discussed by the Study Group concerning strategies for in-service training and preparation of materials, the members have proposed the follow-up activities described below:

Bangladesh

1. Conduct small-group discussion sessions with teachers to encourage them to develop and use exemplar materials relevant to their lessons.
2. Develop modules for in-service training of teachers and teacher educators at Bangladesh Extension and Research Institute.
3. Disseminate information regarding the needs for developing modules with relevant departments of teacher training colleges.
4. With the help of the Government, contact-cum-correspondence courses for teachers could be organized.

India

1. Dissemination of reports of the in-service programmes of other countries will give new directions for organization of in-service programmes. Some of the programmes that are of special interest are:
    a) The team approach to the organization of programmes being adopted by the Philippines. This approach will ensure that all involved implementation of an innovation have an opportunity to discuss it jointly.
    b) The development-of-curricular-materials approach to teacher training in Thailand. A beginning has already been made in India by involving teachers in curriculum development.

       The extensive work done in Thailand will be an inspiration as well as provide ideas for the development of the programmes.
2. Dissemination of information about the material used in in-service education in other countries would suggest more extensive use of these types of materials:
    a) Modules – These are already being used; their use needs to be extended, particularly in the correspondence courses.
    b) Transparencies which can be developed and used by institutions such as the state institutes of education and colleges of education, who have the necessary facilities.
3. Dissemination of the guidelines for preparing exemplar material will be

particularly beneficial. Firstly it will focus attention on the need for care in designing and planning material. Secondly, it will help in the production of material of quality.

Indonesia

The following actions will be taken:

1. In relation to the programme implementation
   - a) Closer and more frequent consultation with the Operational Steering Board.
   - b) More frequent consultations with teacher educators and core trainers of teacher educators.
   - c) More intensive assessment on training needs of the teachers and teacher educators.
   - d) More effective mechanism of evaluation and feedback system.
   - e) More efficient use of the Learning Resource Centres.
2. In relation to guidelines for preparing exemplar materials
   - a) In-depth discussion among those who are responsible for various in-service training programmes for teachers and other educational personnel concerning the possibility of using the guidelines developed in the Study Group meeting.
   - b) Adaptation of the guidelines to the unique condition of the country.
   - c) Development of more suitable guidelines, based on the prepared guidelines.
   - d) Use the adapted guidelines in 1) renovating existing materials, and 2) preparing new materials.
3. In relation to renovation of existing materials
   - a) **Immediate actions:**
     - i) Arrange a short workshop to be attended by: selected teacher educators; selected teachers; representatives of core trainers/trainers of various in-service training programmes; administrative key personnel; and subject matter specialists and experts.

The workshop will aim at evaluating the existing exemplar materials used in various in-service training programmes. It will have exercises for classifying the existing exemplar materials into three categories as follows:

Category	I:	Those which are most relevant
Category	II:	Those which need considerable improvement
Category	III:	Those which are irrelevant

The general guidelines developed in the Study Group Meeting might be used as judgement criteria in the exercise.

- ii) Exercises for improving those exemplar materials classified under category II. The specific guidelines developed in the Study Group Meeting might be used as directives in the exercises. At the same time these exercises can be used to test the usefulness of the guidelines in the unique condition of the country.

b) **Further action:**

Actual revision of existing materials using adapted guidelines. This action can also be used as preliminary tryout of the adapted guidelines for further use in preparing new materials.

Malaysia

1. Reorganization of in-service programmes to include elements of decentralization to encourage innovative proposals which are subject to approval by centralized agency to ensure co-ordination and cost-benefit considerations.
2. Future emphasis on continuing education of teachers and teacher educators and organization of suitable programmes to upgrade their capabilities; possibility of use of strategies involving mass media services, self instructional materials, etc.
3. Updating of inspectors of schools to enable them to provide evaluation mechanisms for in-service efforts.
4. Application of distance teaching approaches for in-service training of teachers in remote areas of Peninsular Malaysia, Sabah and Sarawak.
5. Linkage with institutions of higher learning to implement accreditation arrangements as incentives for continuing in-service education for teachers.
6. Re-examination of proposed roles of state resource centres at teacher training colleges to incorporate in-service functions.
7. Initial (basic) professional training of teachers to be conducted by teacher training colleges while post-graduate training to be undertaken by universities. This will ensure similar approaches to training of teachers and reduce the need for in-service education for such areas as co-curricular activities, relation of teachers' role to national ideology, etc.

Nepal

1. Develop:
    a) exemplar materials, specially modules, for the on-the-spot teacher training programme.
    b) modules for the remote area teacher upgrading programme.
    c) Exemplar materials for lower secondary in-service teacher education, specially for the straight programme; and
    d) wide variety of exemplar materials for secondary in-service teacher education in different subject areas.
2. Revise and improve exemplar materials already in use in the distance teaching programme.

Philippines

Activity 1

Organize a 3-day national level workshop to plan a coordinated approach to in-service training of teachers and other education personnel at various levels. The workshop participants will be (a) Deans of teacher-training institutions, (b) Heads of Bureaus, (c) Regional Directors, (d) Directors of Curriculum Development Centres, and (e) Chiefs of Higher Education Divisions in the Regions.

The objectives of the workshop are:

1. To analyse and review current in-service education programmes and/or involvements of the institutions/offices represented by the participants.
2. To identify priority in-service training needs of the region.
3. To work out coordinated plans for in-service education for teachers of various levels in the region.
4. To identify institutional resources and capabilities for in-service training and plan a scheme of co-operation and complementation with other agencies and regional offices concerned with programmes for teachers and other education personnel.

The target outputs are action programmes for in-service education. The workshop will be initiated by the College of Education and the MEC through the NRDCTE.

Activity 2

Conduct study group meetings and seminars for key personnel involved in teacher education to disseminate knowledge on alternative strategies for in-service education undertaken by countries in the region with a view toward trying these in the country.

Activity 3

Conduct seminar-workshops on improvisation and production of low-cost exemplar materials for teacher education.

Activity 4

Design and undertake the following:

1. Follow-up and evaluative studies on currently used approaches to in-service training from which might be drawn implications for policy formulation on the training of educational personnel.
2. Formative evaluation studies on projects involved in curriculum materials development such as those for mathematics, science, social studies, and non-formal education, as well as on materials used in in-service training for specific clientele like district supervisors, researchers and subject co-ordinators.
3. Analysis, synthesis and evaluation of specific materials used for particular in-service approaches like distance teaching, "reach-out" strategies, credit/non-credit programmes and leadership courses.

Sri Lanka

Strategies

a) Organizing a seminar for personnel involved in the in-service teacher training programme in various fields – e.g. primary, secondary and correspondence courses. One of the main objectives would be to evolve a common basis on which the training programmes could be conducted on new thinking.

b) More emphasis on continuing education – special attention to be paid to up grading the levels of teachers as well as teacher educators. For this purpose better use of mass media (especially the radio network) could be made.

c) Emphasis also to be laid on Mobile Teacher – Training Programmes in relation to remote areas.

2. **Instructional Materials**

Eastablishment of several committees already involved in the teacher training programme to consider change that could be effected in the preparation and use of new instructional materials. The committees may be:

a) Revision committee – To revise the existing changes in them.

b) A committee to study the proposals made at the Study Group meeting and to find the feasibility of preparing and adopting some of them.

c) A committee to study the possibility of making use of local materials in the preparation of instructional materials.

Thailand

The following activities are to be undertaken:

1. **Materials development**

a) Produce and distribute more simplified curriculum materials for administrators and teachers/supervisors.

b) Intensify the production and distribution of local reading materials and teachers' manuals where production is delegated to local educators to suit local needs and situations.

c) Encourage the production of prototype low-cost instructional aids and the accompanying teacher manuals describing how to prepare, use and maintain the materials.

d) Conduct research and evaluation activities in co-operation with appropriate authorities to find out the effectivness of the materials produced and distributed.

e) Identify and disseminate the materials effectively produced and used by various agencies so that the others can learn from and modify these experiences to meet their needs.

2. **Developmental strategies**

   a) Expedite the development of "model schools" and a unified supervision and follow-up evaluation system.

   b) Encourage the schools (on a voluntary basis at the beginning) to develop a "built-in" system of internal supervision and in-service education. Resource persons to assist this programme can be drawn from the capable teachers who conduct effective teaching-learning activities, as well as from the group of school resource persons who already underwent in-service training (for trainers) in 1978 and 1979.

   c) Set up a network of in-service education for "good potential" teachers to undergo in-service training at a model school. The schools selected should be those where student-teachers practise teaching so that this programme would not affect classroom activities.

   d) Set up a network for producing low cost instructional aids together with teachers' manuals. Priority will be given to the provinces which are interested and ready to join this project.

ANNEX I

AGENDA

1. Inaugural session
2. Consideration of the agenda
3. Review and analysis of experiences related to the strategies used in the country for in-service training of teachers and other educational personnel
4. Review and analysis of exemplar materials developed in the countries for in-service training of teachers and other educational personnel
5. Development of guidelines for preparation of exemplar materials for in-service training of teachers and other educational personnel
6. Preparation of the follow-up activities
7. Consideration and adoption of the Report of the Meeting

ANNEX II

LIST OF PARTICIPANTS

Bangladesh

Mrs. Maliha Khatun
Deputy Director
Bangladesh Education Extension
and Research Institute
Dhanmondi, Dacca 5

India

Dr. E. Marr
Reader
Department of Teacher Education
National Council of Educational
Research and Training
Sri Aurobindo Marg, New Delhi, 110016

Indonesia

Mr. Rochman Natawidjaja
Assistant Director
Teacher Training Project
Ministry of Education and Culture
Jakarta

Malaysia

Mr. Mohd. Khairuddin bin Haji
Mohd Ashaari
Assistant Director
Teacher Training Division
Ministry of Education
Jalan Wisma Putra, Kuala Lumpur

Nepal

Mr. Om Prakash Gupta
Reader, Institute of Education
Tribhuvan University
Central Campus, Sanothimi, Kathmandu

Philippines

Mr. George R. Garma
Senior Educational Researcher
National Research and Development
Centre for Teacher Education (NRDCTE)
and Co-ordinator, Development Programme
for Schools District Supervisors
Ministry of Education and Culture
Manila

Dr. Milagros D. Ibe
Associate Professor
College of Education
University of the Philippines
Diliman, Quezon City

Sri Lanka
Democratic Socialist Republic of

Mr. S.M. Dissanayake
Education Officer
Education Office, Vavuniya

Thailand

Mr. Swat Chongkol
Director
Curriculum Development Centre
Department of Educational Techniques
Ministry of Education
928 Sukhumvit Road, Bangkok 11.

Observers

Mr. Miharu Kajita
Senior Researcher
Section for Educational Co-operation in Asia
National Institute for Educational Research (NIER)
Meguro-Ku, Tokyo, Japan

Mr. Wirach Waiyawudh
Head
Administration Section
Curriculum Development Centre
Department of Educational Techniques
Ministry of Education
928 Sukhumvit Road, Bangkok, Thailand

Miss Peeranuj Pasurapatra
Head
Educational Materials Section
Educational Materials Development Centre
Ministry of Education, Bangkok, Thailand

Unesco Regional Office for Education in Asia and Oceania, Bangkok

Mr. Raja Roy Singh
Director

Dr. A. Latif
Chief of ACEID

Dr. H.K. Paik
Specialist in New Methods in

ANNEX III

LIST OF DOCUMENTS

Working Documents

ROEAO-79/APEID-ST. ITT/1	Annotated Agenda
ROEAO-79/APEID-ST. ITT/2	Provisional Schedule of Work
ROEAO-79/APEID-ST. ITT/3	In-service Training of Teachers, Bangladesh by Mrs. Maliha Khatun
ROEAO-79/APEID-ST. ITT/4	National Council of Educational Research and Training – In-service Education Programmes by Dr. Evelyn Marr
ROEAO-79/APEID-ST. ITT/5	Teacher Training Programme, Indonesia by Mr. Rochman Natawidjaja
ROEAO-79/APEID-ST. ITT/6	Some Experiences of Different Strategies used in In-service Training of Teachers and Other Educational Personnel in Malaysia by Mr. Mohd. Khairuddin bin Haji Mohd. Ashaari
ROEAO-79/APEID-ST. ITT/7	The In-service Training of Teachers and the Development of Exemplar Materials in Nepal: A Case Study by Mr. Om Prakash Gupta
ROEAO-79/APEID-ST. ITT/8	Human Resource Development Programmes of the National Research and Development Centre for Teacher Education, Philippines by Mr. George R. Garma
ROEAO-79/APEID-ST. ITT/9	In-service Training of Teachers and Other Educational Personnel: The UP College of Education Experience by Dr. Milagros D. Ibe
ROEAO-79/APEID-ST. ITT/10	Development of Exemplar Materials for In-service Training of Teachers, Sri Lanka by Mr. S.M. Dissanayake
ROEAO-79/APEID-ST. ITT/11	In-service Training of Teachers in Thailand: A Review of Experiences Related to the Training for Curriculum Implementation by Mr. Swat Chongkol

Unesco Regional Office for Education in Asia and Oceania

APEID PUBLICATIONS RELATED TO TEACHER EDUCATION

Unesco, P.O. Box 1425, Bangkok G.P.O., Bangkok, Thailand

1. *Alternative structures and methods in teacher education, 1975* *
2. *Teacher education and curriculum for development, 1975* *
3. *Continuing education for teacher educators – advanced-level workshops, 1976* *
4. *Exploring new directions in teacher education. (Teacher Education 1) 1976* *
5. *In-service training of teachers in Sri Lanka (IBE/ACEID series), 1976*
6. *Exploring new directions in teacher education: re-orienting teacher education for rural development (Teacher Education 2) 1977*
7. *Preparing teachers for education in rural development – a handbook, 1977*
8. *Continuing education for teacher educators – advanced-level workshops, 1978*
9. *Continuing education for teacher educators: handbook of suggestions for organizing advanced-level workshops, 1978*
10. *Developing instructional modules for teacher education: a handbook, 1978*
11. *Developing instructional modules for teacher education: selected exemplar modules, 1978*
12. *Continuing education for teacher educators: identified needs and plans for national workshops, 1979*
13. *Policy studies in Asia – the training of educational personnel: India, Nepal, Pakistan, Philippines, Thailand. 1979*
14. *Teacher education: directions of change. 1979*
15. *Universalizing education: new techniques for preparing educational personnel, 1979 (selected innovative experiences)*
16. *Universalizing education: strategies for development and use of instructional materials, 1979*
17. *Designing instructional materials for general education and teacher training: a portfolio of experiences in Asia and Oceania, 1980*
18. *New personnel profiles in relation to changes in society and educational systems, 1980*

---

* Out of stock

The *Asian Programme of Educational Innovation for Development (APEID)*, initiated on the recommendation of the Third Regional Conference of Ministers of Education and Those Responsible for Economic Planning in Asia (May–June 1971, Singapore) and the authorization of the General Conference of Unesco at its seventeenth session (Paris, 1972), aims at stimulating and encouraging educational innovations linked to the problems of national development in the Asian region.

All projects and activities within the framework of APEID are designed, developed and implemented co-operatively by the participating Member States through their national centres which have been associated by them for this purpose with APEID.

The 20 countries in Asia and Oceania participating in APEID are: Afghanistan, Australia, Bangladesh, India, Indonesia, Iran, Japan, Lao People's Democratic Republic, Malaysia, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Republic of Korea, Republic of Maldives, Singapore, Socialist Republic of Viet Nam, Sri Lanka and Thailand.

The Asian Centre of Educational Innovation for Development (ACEID) has been established at the Unesco Regional Office for Education in Asia and Oceania in Bangkok to co-ordinate the activities under APEID and to assist the associated national institutions in carrying them out.

The aims of APEID are:

- to stimulate efforts of the Member States to improve the quality of life of the people through creating and strengthening national capabilities for the development and implementation of innovations in education, both formal and non-formal;
- to encourage the Member States to make all groups (students, teachers, parents, village and community leaders, administrative personnel and policy makers) aware of the need for relevant changes in education (both formal and non-formal) as an essential pre-requisite for the improvement of the quality of life of the people;
- to promote understanding and appreciation of the differences in educational practices and approaches of the Member States, and thereby contribute to international understanding and the creation of a new international economic order.